

CLASSIFIED ADVERTISING

RATES: Fifty words or less in 6-point light-face type only, one insertion, \$2.00, additional words four cents each. Three consecutive insertions \$5.00, additional words ten cents each.

PAYMENT in advance is required for advertising in this column.

POSITIONS WANTED

AVAILABLE: Refrigeration and air conditioning engineer with five years' experience in laboratories of large manufacturers, two years' service managerial experience, four years of sales experience and ten years' production work. Member of ASRE and ASME. Box 1072, Air Conditioning & Refrigeration News.

THOROUGHLY EXPERIENCED Manager for your commercial refrigeration department. Has technical and 12 years' successful practical experience in the organization and management of commercial departments. Can obtain volume sales, engineer any type of installation, and diagnose difficult service problems, thereby assuring profits. Will consider any location. Write Box 1073, Air Conditioning & Refrigeration News.

AIR CONDITIONING Department Organizer. A man, with 20 years' experience, starting with architecture, ranging through broad manufacturing and merchandising experience, and culminating in several years' work with leading air conditioning company, will be available after September first to a manufacturer or distributor to promote year 'round products. Knows design, man-management and promotional works. Has made five figure yearly income but would start on smaller basis with expanding possibilities. Write Box 1074, Air Conditioning & Refrigeration News.

REPAIR SERVICE

CONTROL REPAIR service. Your controls repaired by expert mechanics, with special precision equipment. Supervised by graduate engineers. We stress perfection and dependability before price. One year guarantee on domestic controls. Any bellows operated device repaired. **HALELECTRIC LABORATORY**, 1793 Lakeview Road, Cleveland, Ohio.

GENERAL ELECTRIC and Westinghouse hermetic units rebuilt. Guaranteed unconditionally for one year and returned to you refinished like new. Units are entirely disassembled in our large modern shop, tested through every step of production during rebuilding with the most complete test equipment for accurate work, then subjected to exhaustive running tests under actual operating conditions. Each unit measures to exacting standards after rebuilding. Prices \$30.00 on General Electric DR-1, DR-2, and Westinghouse; \$35.00 on General Electric DR-3. Quotations furnished on other models. Quick service—guaranteed work. **REFRIGERATION MAINTENANCE CORP.**, 365 East Illinois St., Chicago, Ill.

DOMESTIC CONTROLS repaired: Ranco pencil \$1.75, Ranco box \$2.00, General Electric \$2.00, Tag \$2.00, Cutler-Hammer \$2.00, Penn \$2.00, Bishop Babcock \$2.50, Majestic \$2.50, Penn magnetic \$2.50, G. E. Frigidaire \$2.50. In business over 20 years. Our name is our guarantee. **UNITED SPEEDOMETER REPAIR CO., INC.**, 436 West 57th Street, New York City.

ALL MAKES of reciprocating type compressors rebuilt or repaired. Discharge plate, float valve and compressor body exchange service, specializing in Kelvinator and Frigidaire. New machine performance guaranteed. Standard size parts used—no oversize or reamed parts. Write or wire for price list and references. **RE-NU COMPRESSOR & SUPPLY CO.**, 2462 W. Fond du Lac Ave., Milwaukee, Wisconsin.

WORLD'S LARGEST Rebuilders of hermetic units. Specializing in Majestic, G. E., Westinghouse and Grunow. Dealers exchange price \$30.00 with 18 months' written guarantee. Parts for Grunows and Majestics all models. G. E. units wanted for cash. Send for catalogs. **G & G GENUINE MAJESTIC REFRIGERATOR AND RADIO PARTS SERVICE**, 5801 Dickens, Chicago.

PATENTS

HAVE YOUR patent work done by a specialist. I have had more than 25 years' experience in refrigeration engineering. Prompt searches and reports. Reasonable fees. **H. R. VAN DEVENTER (ASRE)**, Patent Attorney, 342 Madison Avenue, New York City.

You Can Install
SPORLAN
THERMOSTATIC
EXPANSION
VALVES
with Confidence!

"Superior by name
Superior in Quality"

SUPERIOR
VALVE & FITTINGS CO.
500-37 STREET, PITTSBURGH, PENNA.

Manufacturing a complete line of DIAPHRAGM PACKLESS VALVES, MANIFOLDS, ACCESSORIES and FITTINGS for the Refrigeration and Air Conditioning Industry.

Canvassing Plays Big Role In Drive In San Antonio

(Concluded from Page 1, Column 5) easier for salesmen to get the information, weekly drawings for prizes are held, with a 5-cu. ft. electric refrigerator given as first prize each month. The cards on which the information is written are numbered, with spaces for the prospect's name and address.

Aim is to get the salesman into the home, to examine the refrigerator then in use. The weekly drawing for prizes is intended as an attraction to interest the housewife, so the necessary information may be obtained. When the salesman examines the refrigerator in use, he places on it a small red seal as indication of his call.

Dealers are permitted to purchase 60 names for each outside salesman, and 40 names for each man on the floor. When these places have been canvassed, and the cards filled out, they are turned in to the secretary of the association, and the firm is then entitled to more names.

If the names are not returned to the association within two weeks, the list is re-copied and the names put back into the files for other dealers.

It is estimated that approximately 15,000 names will be available through this plan.

In order that no partiality be shown to members of the radio trades association, those firms not now holding membership are invited to join and participate in the campaign. It is estimated that this plan will increase the membership of the association by at least 100%.

Expenses of the campaign are borne as follows: the 12 distributors will each contribute \$25, making a total of \$300 from this source. The 15,000 names, selling at three cents each, will provide another \$450, making a total of \$750 for the expenses of the campaign.

Prizes to be awarded are as follows: one monthly prize for each of the two months, consisting of a 5-ft. electric refrigerator; one \$100 console radio; one \$49.50 table model radio; one electric food mixer; one electric roaster; one three-speed electric fan; one Tri-Lite floor lamp; and one utility breakfast set. Prizes will be purchased from the distributors at a discount of 50%.

In addition to the cost of the prizes, the following expenses are involved: state tax on prizes, \$123.70; cost of printing, photographs, and miscellaneous expenses, \$82.05. While a definite decision has not been reached as to what will be done with the balance, approved plans call for distribution of this sum as prizes among salesmen showing the best records.

Photographs have been taken of the prizes, and these will be shown by the salesmen as they call on the housewives.

The campaign opened officially on Aug. 8, with a luncheon at which all persons associated with electric refrigeration sales were invited to attend. The drive will continue through Oct. 8.

Committee in charge of arrangements includes J. W. Thiele, Straus-Frank Co., distributor for Frigidaire, chairman; A. W. Knoll, Straus-Frank Co.; Fred Lewis, Karotkin's Furniture Co.; Charles Lorenz, King Furniture Co.; and E. R. Moon, Joske Bros. Co.

New Baltimore Apartments To Be Equipped

BALTIMORE—Electric refrigerators and gas ranges are to be installed in every kitchen of the new Dunmanway Apartments, 36-family structure to be built by Prudential Cooperative Realty Co. of Baltimore in Dundalk, Md., just outside this city.

The project, estimated at \$200,000, will be started this month, and completed by the end of the year.

June Taxes \$565,129

WASHINGTON, D. C.—Taxes collected by the U. S. Treasury Department's Bureau of Internal Revenue on mechanical refrigerator sales during June this year totaled \$565,129 compared to \$976,637 collected during June, 1937.

Taken Suddenly



FRANCIS GEORGE HOOD

Hood, President of Ansul, Was Industry Pioneer

(Concluded from Page 1, Column 4) industry in lower Michigan, where he organized F. G. Hood Co. and built the town of Pentoga, Mich.

In 1909 he moved to Marinette and became president and general manager of Lignum Chemical Co. Early in 1915 he organized Ansul Chemical Co. He was active in the community.

Mr. Hood is survived by his widow, the former Katherine Chambers, and three children.

Organization Formed By Appliance Industry Factors on West Coast

(Concluded from Page 1, Column 3) trade practices and standards in the interests of fair competition and public welfare; to correct trade abuses within the industry; and to "do any and all things not inconsistent with any present or future law which may advance or improve conditions in the industry."

Curtailed of undesirable types of advertising will be another of the institute's aims. It also will act to clear through its executive offices any demands made upon wholesalers for gratis contributions.

Nominees to the board of directors include: Stanford Berry, Household Products Co., Servel Electrolux gas refrigerator representative; H. R. Curtiss, H. R. Curtiss Co., representing Packard-Bell radios; George P. Egleston, H. R. Basford Co., representing Zenith radios and Kelvinator refrigerators; Charles E. Goodwin, Jr., General Electric Supply Corp., representing G-E refrigerators.

R. C. Gray, Remler Co., Ltd., representing Remler radios; H. E. Lapkin, Coast Radio Supply Co., representing Emerson radios and Gibson refrigerators; P. H. Lyon, Chanslor & Lyon Stores, Inc., representing Crosley radios and refrigerators; A. H. Meyer, Leo J. Meyberg Co., representing Norge refrigerators and RCA radios; Caleb Sharrah, Thompson & Holmes, Ltd., representing S-W refrigerators and Philco radios.

Washington, D. C. Sales Down Only 12.7%

WASHINGTON, D. C.—Sales of electric refrigerators in the territory of Potomac Electric Power Co. during the first five months of the year totaled 7,168 units, compared with 8,206 units for the same period last year, a drop of 12.7%, according to estimates by the utility.

Sales of most other major electrical appliances also were down, as follows: ranges, 655 against 991; oil burners, 730 against 1,341; ironers, 440 against 701; washers, 2,544 against 2,743; vacuum cleaners, 2,698 against 2,848.

Radio sales were definitely up, having risen from 7,250 units during the first five months of 1937 to 9,108 units for the corresponding period this year. Water heaters little better than held their own, with 74 units sold in five months of 1938, against 73 sales during this period last year.

Major appliance sales in the company's territory for the entire year of 1937 were as follows: 18,670 refrigerators, 4,133 ranges, 3,843 oil burners, 5,679 washers, 1,566 ironers, and 179 water heaters.

The utility itself merchandises no appliances, having discontinued this practice in 1934. Since then it has confined its merchandising efforts to cooperation with appliance merchants in its territory.

Greenwood Gets Celotex Post

CHICAGO—Marvin Greenwood has been made assistant general sales manager of the Celotex Corp.

DISTRIBUTORS FOR
HUSMANN DISTRIBUTING CO.
251 W. WASHINGTON BLVD.
CHICAGO, ILL.

GENERAL OFFICES
200 S. LEXINGTON AVE.
SAINT LOUIS, MO.

April 19, 1938

Automatic Products Co.
Milwaukee, Wisconsin

Gentlemen:

You might be interested to know that we now use your valves exclusively.

Our service calls have been reduced to a minimum which we attribute to the unusual performance of your valves.

We compliment you on the developing of this new 205 Valve.

Very truly yours,
HUSMANN DISTRIBUTING CO.
Thos. H. Ose
Mgr.

THC:PK

Using VALVES

EXCLUSIVELY"

ON IMPORTANT CABINET INSTALLATIONS

"Service Calls reduced to a Minimum"

A record of carefully watched Performance always stands behind such a statement as "we now use your valves exclusively." For upon the Valve on an important Cabinet Installation depends the reputation of the Cabinet Manufacturer, his distributor, the installing engineer, the meat market owner, and the satisfaction of the ultimate buyer of meat, perhaps the housewife.

A-P Valves are safely guarding that burden of responsibility on hundreds of Refrigeration and Air Conditioning installations. That's why Engineers turn to A-P "Exclusively" with such complete confidence in satisfactory results. You'll profit by demanding A-P Expansion Valves and Solenoids on every job.

AUTOMATIC PRODUCTS COMPANY
2450 NORTH THIRTY-SECOND STREET
MILWAUKEE WISCONSIN

Refrigeration Parts Jobbers, Who Recognize Quality, Stock Controls
Export Department, 100 Varick Street, New York City

DEPENDABLE

THE BYWORD FOR A-P VALVES

Installation . . . Rosenfield & Delhiem
Chicago, Illinois

Manufacturer . . . Cases and Compressor
Hussmann-Ligotier Co.
St. Louis, Mo.

Distributor . . . Hussman Distributing Co.
Chicago, Illinois

Valves Purchased Through . . .
Borg Warner Service Parts
Co. (Jobber)
Chicago, Illinois



Speedy

Perhaps are overlo interest in People's G indicate th sporting ev wrestling, t fast.

Idea of what lady breakfast and coffee i four semi-ranges; th Wisdom, w erator, fin seconds.

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Air Conditioning & Refrigeration News

The Newspaper of the Industry

Trade Mark Registered U. S. Patent Office. Established 1926 as Electric Refrigeration News
Member Audit Bureau of Circulations. Member Associated Business Papers.

Written to Be Read on Arrival

VOL. 24, No. 17, SERIAL No. 492
ISSUED EVERY WEDNESDAYEntered as second-class
matter Aug. 1, 1927

DETROIT, MICHIGAN, AUGUST 24, 1938

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Business News Pub. Co.FOUR DOLLARS PER YEAR
TWENTY CENTS PER COPY

THE COLD CANVASS

By B. T. Umer

General Grant To Rest In Comfort

That whirring noise which New Yorkers along Riverside Drive have been hearing at last has been identified as General Grant turning in his grave over what is currently happening to the American Ship of State he once guided.

New Yorkers figure they can't do much to relieve the former president's distress over current political trends, but they can make him—and the 200,000 visitors who annually come to his tomb—more comfortable.

So the famous Grant's Tomb is being renovated and air conditioned at a cost of \$200,000. That's equivalent to one dollar per visitor.

Winter temperature of the tomb is to be 45°; in summer it is to be 50°. That's pretty cold.

Malted Money

Eugene F. Galvin, general field manager of the Taylor Freezer Corp., was in our offices the other day with a story about the amazing manner in which druggists, confectioners, small restaurateurs, and dairy bars are making loads of money on "frozen malted."

These "frozen malteds" are so thick they require special straws—and, as an old malted milk drinker from way back, B.T.U. is ready to testify they have the conventional malteds beaten a mile. Usually they sell for 10 cents, as compared with 15 cents and 20 cents for regular malted milks.

"Frozen malteds" are ready-mixed, an outgrowth of the counter-freezer. Ice cream mix is bought from a dairy, and combined with an equal amount of milk, plus flavoring, and put into a mixing and chilling machine.

This makes both for economy and speed in serving. According to Mr. Galvin, frozen malted mix costs 40 cents a gallon; and the retailer's profit should be at least 80 cents per gallon.

It's Mr. Galvin's idea that the public response to this new item dates back to their lick-the-freezer days, because the "frozen malted" is of about the same consistency and texture as old-fashioned home-made ice cream.

Before going with Taylor Freezer, Mr. Galvin was regional manager for Brunswick-Balke-Collender in the central states east of Chicago. In five and one-half months his sales organization sold 1,100 Blue Flash refrigerators in the Detroit-Toledo territory.

Speedy 'Cookoff'

Perhaps the electric range boys are overlooking a good bet. Recent interest in a "cookoff" staged by the People's Gas Co. of Chicago would indicate that the public loves a sporting event, whether it be boxing, wrestling, baseball, or cooking breakfast.

Idea of the cookoff was to see what lady could prepare a standard breakfast of ham and eggs, toast, and coffee in the shortest time. The four semi-finalists won new gas ranges; the winner, Mrs. Ann Wisdom, won an Electrolux refrigerator, finishing in 7 minutes, 35 seconds.

A "blow-by-blow" description of the finals was broadcast by Bob Purcell over Station WCFL. Although we did not hear the broadcast, we understand it was a breath-taking affair, of burning ham and broken eggs, liberally spiked with the aroma of boiling coffee.

(Concluded on Page 2, Column 5)

Westinghouse Tops 6-Mo. Advertising In Magazines

NEW YORK CITY—Nine manufacturers of household mechanical refrigerators spent a total of \$1,358,170 in advertising household appliances in national magazines during the first six months of 1937, according to figures compiled for the period by Publishers' Information Bureau.

This compares with a total of \$2,111,591 spent by 13 refrigerator manufacturers during the same period of last year. The nine companies on which figures are reported for this year spent a total of \$2,056,915 in the first six months of 1937. All manufacturers listed in this year's statistics spent at least \$20,000 in national magazines.

With \$287,600 spent in seven publications, Westinghouse Electric & Mfg. Co. led all other manufacturers in national magazine space taken during the period. Frigidaire division of General Motors Corp. was next, with \$269,170 spread over 17 magazines. General Electric Co., using the same number of publications as Frigidaire, was third, with an expenditure of \$262,520.

Hotpoint was fourth, with a half-year magazine advertising total of \$151,140, and Servel Electrolux was fifth, totaling \$104,395, of which \$94,195 was spent in advertising gas refrigerators and \$10,200 on its kerosene-operated unit, for use in rural areas.

Norge division of Borg-Warner Corp. had an advertising expenditure of \$103,500 in national magazines during the half year, according to P.I.B. figures; Kelvinator division of Nash-Kelvinator Corp. spent \$98,710; (Concluded on Page 16, Column 1)

Sunday Closing Sought For Detroit Stores

DETROIT—An ordinance proposing enforced Sunday closing of furniture, hardware, and appliance stores has been submitted to the city's Common Council by the Detroit Retail Furniture Association through E. C. White, president of this association and president and treasurer of Detroit Appliance Dealers Association.

Action on the proposed ordinance has been set aside until early in September, when all members of the council will have returned from their vacations.

"The majority of furniture and electrical appliance dealers already close on Sundays," Mr. White reports, "and many of those who do not close now would do so if they could be sure that their competitors would follow suit. Most stores of this type are open long hours as it is, and the public has ample opportunity." (Concluded on Page 16, Column 2)

Long Summer Vacations Seen Thing of the Past As School Conditioning Plans Are Considered

LOUISVILLE, Ky. — Louisville school children at some not-too-distant date may face the prospect of more frequent, but shorter vacations scattered throughout the year.

The changed program, according to Stephen S. Jones, president of the board of education, would be made possible by air-conditioned classrooms. The proposal is under consideration by Louisville school authorities, who point out that with temperature-controlled buildings the length of the school term could be staggered. Shorter and more frequent terms, punctuated with brief vacation intervals fitted in several times a year, might be arranged.

"A 12-month teaching job instead of loafing two or three months each summer would probably be welcomed by many teachers," said Prof. W. S.

Suit Seeks To Restrain Current Grunow Actions

Charge Is Made That Firm Is Selling Products and Property At Low Prices

CHICAGO—A lawsuit has been filed in Cook County Superior Court here by Louis Cohen, a stockholder in the General Household Utilities Co., asking that the company be restrained from disposing of any of its property and requesting that a receiver be appointed and that the company make an accounting.

The stockholder who brought the suit charges that the corporation property has been wrongfully handled by the sale at auction of radio sets from the Marion, Ind. plant of the corporation at prices much less than the cost of manufacture.

It is further alleged that the defendant company has plans afoot for the sale of the Marion plant at approximately \$400,000, while the same property is carried in the balance sheet of the company at approximately \$700,000.

It was also alleged by the plaintiff that the members of the board of directors of the company speculated in the company's stock.

'Display' Case Called Frozen Foods Need

CLEVELAND — Urging frosted food dealers to present better visual displays of the food products (refrigerated display cases) as a means of promoting quick-frozen foods, C. Q. Sherman, head of the Sherman Co. of New York City, in an address before a special frosted foods clinic held here recently, pointed out that too many dealers are keeping the products out of sight in hidden cabinets.

A survey among 551 dealers in 19 cities showed that consumers who were acquainted with quick-frozen foods returned to the stores regularly for repeat purchases, Mr. Sherman declared.

Mr. Sherman was presiding as chairman of the clinic, being held as part of the eleventh annual convention of the National Food Distributors Association here, when he made his address.

The survey, Mr. Sherman continued, showed that dealers who exhibit quick-frozen food products in open-view display cases sell four times as much produce as do dealers who keep their foods in concealed cabinets.

Immediate need of a quick-frozen foods institute to undertake a campaign. (Concluded on Page 16, Column 2)

Summertime Sales Of Air Cooling Up In Chicago, Detroit

CHICAGO—Sales of central air-conditioning systems in Chicago last month set a new all-time high record for July, according to reports of Commonwealth Edison Co., local utility, 47 contracts for this type of equipment being closed, compared with 44 in July, 1937.

Combined capacity of these installations, however, was only 470 hp., against 788 hp. for installations made during the corresponding period last year.

In addition to the central systems, 104 room coolers were sold in Chicago last month, a drop of 31% from the mark of 152 units set in July, 1937.

Total tonnage of the 143 installations made last month was 457½ tons; total connected horsepower was 545½ hp.

A breakdown of the month's central-system installations, by type of establishment, follows:

General offices	18
Restaurants	10
Drug stores	5
Residences	3
Amusement parlors	1
Beauty parlors	1
Doctors' and dentists' offices	1
Candy stores	1
Clothing stores	1
Food stores	1
Shoe stores	1
Miscellaneous stores	1
Funeral parlors	1
Hospitals	1
Industrial plants	1

Detroit Sales Ahead In Some Classifications

DETROIT—Sales of air-conditioning units in the Detroit area for June, 1938, reported by Detroit Edison Co. to the Air Conditioning Association of Michigan, show total tonnage of central-station remote systems and number of room cooler sales to be ahead of a similar period of 1937, while sales of self-contained store units are below last year.

Three central-station units sold during June, including one well-water system in a theater, totaled 380 tons, compared with 200 tons of equipment installed on 10 jobs in June of 1937.

Room coolers sold in the Detroit area this year totaled 32 units, as (Concluded on Page 2, Column 4)

Hotelmen's 'Boycott' on Air Cooling Is Broken

PHILADELPHIA—Last week an air-conditioned hotel room was obtainable in a Philadelphia hotel for the first time in the Quaker City's existence.

The air-conditioning "ice" was broken Aug. 15 when J. P. Binns, representing the Cambridge Realty Co., ordered 20 Carrier portable room coolers installed in the St. James hotel at 13th and Chestnut Sts., which his company operates.

Installation of the portables came as a surprise to many local citizens as for years an unwritten "agreement" was said to have existed among the leading hotels to hold off on guest room air conditioning. Many of these hotels, however, have air-conditioned coffee or cocktail rooms.

The St. James hotel, for which the Fidelity Philadelphia Trust Co. is trustee, is the oldest all-steel, skyscraper hotel in the city. Built 36 years ago, the St. James was a "closed house" for many years, and was the favorite stopping place of the Drexels, Elkins, Biddles, Kents, and other Philadelphia society leaders.

During the last three years, it has been completely reconditioned and the rooms redecorated. Air conditioning was installed in the grill room and coffee shop in 1936.

26,042 Units Is 6-Month's Total For Philadelphia

Retail Sales Figure Well Under 1937 Total But Price Average Is Up

PHILADELPHIA—Household electric refrigerator sales in the Philadelphia area for the first six months of the year totaled 26,042 units, a drop of nearly 45% from last year's half-way mark of 46,603 units and slightly more than 35% below sales for the first six months of 1936, according to figures compiled by the Electrical Association of Philadelphia.

Average price of units sold during the first half of the year was \$175, as compared with \$174 for the similar period of 1937. Average unit price for individual months ranged all the way from \$180, in January, to a figure of \$173 in May and June.

Sales during January almost held (Concluded on Page 2, Column 2)

NLRB Considers Case Of Kelvinator Men

DETROIT—The National Labor Relations Board hearing on charges brought against Nash-Kelvinator Corp. by Local 174 of C.I.O.'s United Automobile Workers regarding the discharge of four Kelvinator employees allegedly for union activities, has been concluded, and both parties are now awaiting the report of Webster Powell, trial examiner.

The original complaint, which apparently grew out of inter-union friction between Mechanics Educational Society (the union which claims a majority of Kelvinator workers and which staged an extended sit-down strike early in the spring of 1937) and the U.A.W., was issued last December and named four men as plaintiffs.

An amendment made in July cut this number to three, and a second (Concluded on Page 16, Column 2)

Labor War May Force Philco Plant Move

PHILADELPHIA—Labor trouble may force Philadelphia Storage Battery Co., manufacturer of Philco radios, to move its plant to another city unless Philadelphia grants full protection to loyal Philco workers against acts of terrorism by a "minority group" of striking employees, Philco's President James M. Skinner has warned in a letter to Philadelphia's Mayor Wilson.

The Philco plant, which employed 12,500 workers in peak production periods, has been closed since May 1 because of a strike.

During that period, loyal employees have been slugged while entering and leaving the factory, attacked in public places and in (Concluded on Page 16, Column 3)

Committee For January Show Meets In Chicago

CHICAGO—Members of the Exhibition Committee of the Refrigeration Supplies & Parts Manufacturers' Association will meet today (Aug. 24) in the Morrison hotel here to discuss further plans for the first All-Industry Exposition which the association is sponsoring in the Stevens hotel, Jan. 16 to 19, 1939. M. W. Knight, sales manager of Peerless of America, Inc. and chairman of the exhibition committee, will be in charge of the meeting.

Philadelphia Dealers Sold 26,042 Refrigerators In First 6 Months of 1938 At an Average Price of \$175

Month	1938 Units Sold	1937 Units Sold	1936 Units Sold	1938% Inc. Or Decrease Over 1937	1938 Retail Value	1937 Retail Value	1938% Inc. Or Decrease Over 1937	1938 Average Price	1937 Average Price
January	3,123	3,135	2,532	-4%	\$ 564,097	\$ 524,071	+ 8%	\$180	\$167
February	3,797	3,619	3,657	-38%	664,574	1,076,607	-39%	176	175
March	4,826	9,051	7,668	-47%	848,012	1,570,635	-46%	175	173
April	5,861	9,452	9,870	-38%	1,037,313	1,638,226	-38%	176	173
May	4,812	9,743	9,911	-51%	832,319	1,695,279	-51%	173	174
June	3,623	9,103	6,641	-61%	627,475	1,608,916	-61%	173	177
Totals	26,042	46,603	40,279	-45%	\$4,573,790	\$8,113,734	-44%	\$175	\$174

Sales By Philadelphia Electric Co.

Month	1938 Units Sold	1937 Units Sold	1936 Units Sold	1938% Inc. Or Decrease Over 1937	1938 Retail Value	1937 Retail Value	1938% Inc. Or Decrease Over 1937	1938 Average Price	1937 Average Price
January	83	96	81	-14%	\$ 13,514	\$ 18,290	-27%	\$163	\$190
February	222	191	160	+16%	41,414	36,658	+12%	186	192
March	316	457	372	-31%	58,148	87,763	-34%	184	192
April	458	809	810	-43%	86,546	157,812	-45%	189	195
May	514	892	867	-42%	100,123	177,393	-44%	194	198
June	395	850	768	-54%	79,693	172,633	-54%	200	203
Totals	1,988	3,295	3,058	-40%	\$ 379,438	\$ 650,549	-42%	\$190	\$197

Note: Utility sales approximate 7.7% of total sales

Report covers sales in Philadelphia, Bucks, Montgomery, Delaware, and Chester counties.

Report includes sales of the following makes: Apex, Coldspot, Crosley, Frigidaire, Copeland, General Electric, Hotpoint, Kelvinator, Leonard, Norge, Sparton, Stewart-Warner, and Westinghouse.

Potato Peeler Gift Gets 300 Prospects To Store

ROANOKE, Ala.—Heard Electric Co., local Westinghouse dealership owned by Garfield Heard, recently sent 425 housewives of this city invitations to visit the store to inspect the 1938 Westinghouse refrigerator, and offered souvenirs (in the form of potato peelers) to those who accepted.

Three hundred women responded, and five sales were made as a direct result.

Lounsbury Sole Owner Of Plainfield Store

PLAINFIELD, N. J. — Central Radio Service Co., of this city, appliance dealer, is now solely owned and operated by William T. Lounsbury.

Quick to install, easy to service, economical to operate—that's Coltrol D-X beverage cooler.

COLTROL
Write for literature
Commercial Coil & Refrig. Co.
457 N. Artesian Ave., Chicago

PENN AUTOMATIC CONTROLS AND SWITCHES
Protect the reputation of your product
Write for Catalog
PENN ELECTRIC SWITCH CO.
GOSHEN, INDIANA

"Superior by name
Superior in Quality"
SUPERIOR
VALVE & FITTINGS CO.
500-5750 PITTSBURGH, PENNA.
Manufacturing a complete line of DIAPHRAGM PACKLESS VALVES, MANIFOLDS, ACCESSORIES and FITTINGS for the Refrigeration and Air Conditioning Industry.

Anaconda Copper Refrigeration Tubes
for difficult jobs!

THE AMERICAN BRASS CO.
FRENCH SMALL TUBE BRANCH
General Offices: Waterbury, Conn.

Philadelphia Report Shows Trend of Retail Sales This Year

(Concluded from Page 1, Column 5) their own with those of January, 1937, the unit figure being 3,123 against 3,135 for the previous year—a drop of only .4%. Next month, however, sales were off 38% and the curve continued steadily downward (with the exception of April, which showed a slight let-off in the decrease) until in June sales were 61% below sales for June, 1937.

Dollar volume of sales followed a similar trend, with a total for the six-month period of \$4,573,790, or 44% below the \$8,113,734 worth of domestic refrigeration sold during the first half of 1937. January was the only month in which the dollar volume showed an increase over the previous year, and this was only 8%. In February, dollar volume was down 39%, and this drop continued, with a slight let-up in April, to become progressively worse until it reached 61% in June.

Only month in which dollar volume passed the million-dollar mark this year was April, when it reached \$1,037,313 for the 5,861 units sold. In 1937, retail value of domestic refrigerator sales exceeded the million-mark in each month from February through June.

Sales by Philadelphia Electric Co. alone totaled 1,988 units, or approximately 7.7% of total sales for the half-year period. Utility sales for the period were 40% down from the mark set by the company last year. Average unit price of the utility's sales was \$190, compared to \$197 for the same period last year. May was the best month for the company.

The report covers sales in Philadelphia, Bucks, Montgomery, Delaware, and Chester counties, and includes sales of the following makes of refrigerators: Apex, Coldspot, Crosley, Frigidaire, Copeland, General Electric, Hotpoint, Kelvinator, Leonard, Norge, Sparton, Stewart-Warner, and Westinghouse.

Servel Evansville Plant Readied For New Models

EVANSVILLE, Ind.—All departments of the plant of Servel, Inc., here were closed down Aug. 17 for annual inventory and adjustments necessary to start manufacture of the new model Electrolux refrigerator. The plant will remain closed for about four weeks.

Build both PROFITS and PRESTIGE with Copeland

Commercial Refrigeration
There's a double satisfaction in selling Copeland Commercial Refrigeration. First, of course, is the extra PROFIT offered by this quality-line. And second, there's the satisfaction of knowing that every Copeland you sell adds to your reputation and prestige.

Write today for FULL FACTS about Copeland's profit opportunity.

COPELAND REFRIGERATION CORPORATION, Sidney, Ohio

Minneapolis Utility Wins Water Heater Ad Contest

NEW YORK CITY — Northern States Power Co., Minneapolis, whose advertising department is headed by T. H. Kettle, walked off with first prize of \$250 in the \$400 utility and dealer advertising contest sponsored by the National Electric Water Heating Council of the Modern Kitchen Bureau.

The winning campaign, featuring generous use of white space and large black-and-white line drawings, was typified by an advertisement showing a happy housewife exuberantly washing dishes—free from worry, now she has hot water whenever she wants it!

'ASK THE BABY'

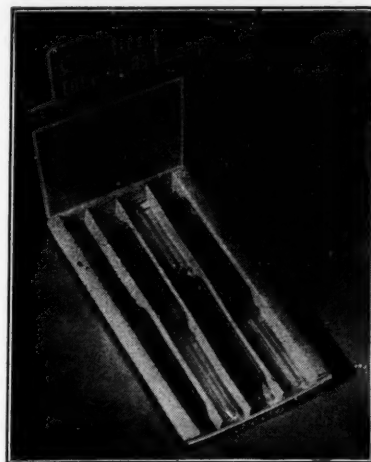
"Ask the Baby," "Ask Your Daughter," "Ask Your Son," "Ask Your Wife" were the headlines of the series of sprightly cartoon-illustrated advertisements which won the \$100 second prize for Tennessee Electric Power Co., Chattanooga, Tenn. Each advertisement stressed the importance of the water heater to the particular member of the family mentioned in the head. R. W. Youngstead is advertising manager of the utility.

Lacking the space of the other two campaigns, but making up for it in consistency was the third-prize-winning "testimonial" campaign of Wisconsin Michigan Power Co., Iron Mountain, Mich. Single column advertisements ranging in size from 95 to 125 lines ran every weekday from Feb. 21 through May 19. The campaign consisted of actual testimonials from users and photographs of their homes. The company also featured its 1-cent-per-kwh. rate. Advertising manager is M. G. Gorrow. Judges in the contest were Roy Dickinson, Printers' Ink; Harford Powell, Institute of Public Relations; Walter McCain, Advertising Age.

FIRMS WHICH COMPETED

Among public utilities and dealers from all parts of the country who entered the campaign were: Wisconsin Public Service Co., Wausau, Wis.; Alabama Power Co., Birmingham, Ala.; Iowa Electric Light & Power Co., Cedar Rapids, Iowa; Montana Power Co., Lewiston division, Lewiston, Mont.; Atlantic City Electric Co., Atlantic City, N. J.; Metropolitan Edison Co., Reading, Pa.; Electric Appliance Dealers' Association of Minneapolis, Minneapolis; Minnesota Power & Light Co., Duluth, Minn.; Hartford Electric Light Co., Hartford, Conn.; Illinois Northern Utilities Co., Dixon, Ill.

Cools While It Stirs



Colored liquid chills the drink in this new type cooler-stirrer.

Liquid-Filled Tubes Are Newest Drink Coolers

NEW YORK CITY—Glass tubes filled with colored liquid and equipped with handles are being manufactured under the name of "Cavalier Cool Stirs" by Cavalier Glass Mfg. Co. here for use in cooling and stirring drinks.

The "Stirs" are first frozen in the ice-cube compartment of an electric refrigerator, then placed in the drinks to be cooled. When not in use the Stirs are to be kept in the refrigerator so that they will be ready for service at any time.

Stirs come in a variety of colors and are packed four to a display box.

32 Room Coolers Sold In Detroit In June

(Concluded from Page 1, Column 4) compared with 31 sold in June of last year.

Sale of three self-contained store units accounted for 11 tons of business during June of this year, as compared with 10 units totaling 33 tons sold during June of 1937.

One central-station residential system was installed in June this year, having a capacity of 3 tons.

Contractors engaged in the sale of commercial air-conditioning equipment have reported to the Air Conditioning Association of Michigan that more than the usual number of jobs are out for figures at the present time, and that all indications point to a good volume of business through the fall months.

Direct-Expansion Remote Systems

Classification and Installation	Hp.
S. S. Kresge Co., Carrier.....	300
Ann Arbor Savings Bank, Carrier...	30

Self-Contained Store Units

Argeros Castoloulos (Candy), Airtemp	3
J. A. De Santis (Mortuary), Airtemp	5
University of Michigan Hospital, Ann Arbor (Operating Room), Frigidaire	3
Hutzel Dress Shop, Ann Arbor, Frigidaire	3
Hutzel Dress Shop, Ann Arbor, Frigidaire	3
Hutzel Dress Shop, Ann Arbor, Frigidaire	3

Central-Station Residence Systems

Louis S. Morse, Jr., York.....	3
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Room Coolers

10 Frigidaire ¾ hp.	7½
6 S.A.C. ¾ hp.	4½
4 Allison ¾ hp.	2
3 Carrier ¾ hp.	2½
3 Johnson ¾ hp.	1½
2 York ¾ hp.	1½
2 Airtemp ¾ hp.	1½
1 Fairbanks-Morse ¾ hp.	¾
1 Universal ¾ hp.	¾

Well-Water Systems

Fenkell Theater, Simplex Engineering Co.	50
---	----

200-Locker Storage Plant Planned In McCook, Neb.

MCCOOK, Neb. — The McCook Packing & Ice Co. has drawn up plans for a refrigerated locker service, with approximately 200 lockers to be installed for annual rental to farmers and townfolk of southwestern Nebraska.

THE COLD CANVASS

By B. T. Umor

(Concluded from Page 1, Column 1)

Public interest might be placed at fever pitch by having the electric range industry select a champion of speedy cooking and have her challenge Mrs. Wisdom to a championship contest in Madison Square Garden.

Then we would have a new world's champion, with another title at stake, and every bride with a new electric range could dream of someday usurping the cookery throne. Well—why not?

Sobriety Test

A new system for determining whether or not you are overly inebriated was explained the other day by J. R. Siegert, manager of Modern Products Co., Philadelphia distributor of Servel Electrolux kerosene and bottled gas refrigerators.

Mr. Siegert was visiting us here in our own den, and during the conversation he told us of a friend of his who, when he wants to find out if he has tossed too many down the hatch, tries to say:

"Batten, Barton, Durstine, and Osborne."

If he makes it without any trouble, he still has room for more. If the tongue-twister trips him, he's ready to call it a night.

Diminishing Returns

When do taxes reach what the economists call the point of diminishing returns?

When a man in his prime sells out a successful business and places most of his employees on the labor market, because it isn't worth while, in his mind, to carry on just for the net result of paying more taxes.

When another man retires and returns to the simple life in his old home town, seeing no reason for burning up his energies when one may earn less and have more.

When a professional man takes a three-months vacation without pay and finds that he comes out in the end almost as well off as if he had made more, only to yield most of it to Caesar.

"If a man can get along as well on 26 weeks' work a year as on 52, this reporter is the last one to chide him for 'resting,'" writes Mannel Hahn in Nation's Business for August.

Human motives are no different essentially between these men and the fellow on relief who prefers \$12 a week "earned" in that way to \$18 for laying pipe or firing a furnace.

George Would Be Surprised!

If George Washington were to come back for a visit to this country, which he taught to stand on its own two feet, not only would he have a hard time associating the present type of government with the one he helped to organize, but he wouldn't recognize:

An automobile, a street car, a locomotive, an airplane, a steamship, a submarine, a bicycle, an elevator, a sewing machine, a typewriter, a radio, a camera, a motion picture, a telephone.

A refrigerator, a drinking fountain, a furnace, an electric lamp, a flashlight, a fountain pen, a two-cent stamp, a postman, an envelope, a match, a revolver, a pair of rubbers, a concrete sidewalk, a want advertisement, a lighthouse, an army tank, a football game, a circus. And a bathing suit.

NEW PRODUCTS FOR NEW APPLICATIONS
Wherever it is desired to reduce heat or humidity there is a
GENERAL REFRIGERATION CORPORATION
Write for information covering the complete GR-Lipman line.
Dept. F-4, Beloit, Wisconsin, U.S.A.

N. Y. Salesmen 'Brush Up' Westinghouse Story In Hopes of \$5 Reward

NEW YORK CITY—Westinghouse dealers in the New York area are being visited currently by a mysterious refrigerator "prospect" known only as "Mr. Check."

If the salesman who approaches Mr. Check as he enters any of these dealerships gives a satisfactory demonstration of the Westinghouse refrigerator, with emphasis on the "meat keeper," Mr. Check hands him a \$5 bill. If the salesman fails, he receives only a "regret card."

Sponsor of this No. 1 mystery man in New York refrigeration circles is Time Appliance Co., Westinghouse distributor here. The idea is said to have originated in Westinghouse's home office and to have been tried out in various cities throughout the country before reaching New York.

Retail salesmen have been forewarned through distributor bulletins of the possible visit of Mr. Check, and have been polishing up their best "meat keeper" presentations. Weekly cartoon-illustrated bulletins sent out by the distributor list those salesmen who won \$5 the previous week, and warn salesmen who have not yet met Mr. Check to be on their toes.

Salesmen say that Mr. Check performs his act so cleverly that they are given no clue as to his identity until the demonstration is over and he presents either the bill or the card. So to be on the safe side, they're treating everyone like a bona fide prospect.

Nides Leaves Kelvinator Post To Form New Firm

CHICAGO—Sam Nides, for eight years advertising and sales promotion manager of R. Cooper Jr., Inc., General Electric distributorship here, and more recently sales manager of the Chicago branch of Kelvinator division, Nash-Kelvinator Corp., has affiliated himself with Printercraft, Inc., Chicago printing firm, as vice president and director of the company's new merchandising division.

In his new position, Mr. Nides will serve as merchandising counselor for Printercraft's clients. He will not attempt to create or criticize advertising programs, but simply will analyze each job from a merchandising viewpoint and try to suggest at least one merchandising angle that will make the customer's printed piece more valuable to him.

While with R. Cooper Jr., Inc. Mr. Nides was selected as the outstanding advertising and sales promotion manager in the entire G-E organization.

Landers, Frary & Clark Opens New Coast Office

SAN FRANCISCO—Opening of the enlarged west coast offices and showroom of Landers, Frary & Clark, manufacturer of Universal appliances, on the fourth floor of the Western Merchandise Mart has been announced by Fred W. Porter, Pacific coast manager of the company.

Featured in the new showroom displays are many dealer advertising and sales promotional materials.

Iowa Creamery Completes Locker Plant Plans

CHURDAN, Iowa—Erwin Beschorner and James Spear have completed arrangements for installation of a cold storage locker plant in the Churdan creamery here. The creamery now is undergoing extensive remodeling to accommodate the cooling system.

Locker plant equipment was purchased from Shotwell-Carver Co., Des Moines, Iowa, and this firm also will handle the installation. The plant is scheduled to commence operation about Sept. 1.

Florida Dealer Moves

BARTOW, Fla.—Bartow Electric Co., appliance dealership here, has moved to 190 N. Florida Ave.

Air Cooling Proves Cure For Oklahoma Cafe's Declining Volume

OKLAHOMA CITY, Okla.—How the drooping sales curve of restaurant patronage can be cured by installation of air conditioning has been conclusively demonstrated by Harold Flake, proprietor of Flake's Cafe here.

In December, 1934, Mr. Flake opened a small lunch counter in Oklahoma City. Only 17 customers could be seated at one time. Business was good and in April, 1936, Mr. Flake installed a small air-conditioning unit, and 7,000 people were served in a single month. In August 9,300 people were served.

In May the checks averaged 40 cents; gross income was \$2,800. In August the average check dropped off, but the gross income increased, due to the large number of people served. That sold Mr. Flake on air conditioning.

When Flake's Cafe was again enlarged in November, 1936, to a seating capacity of 100 people, a 7½-ton Freon compressor was installed which was connected to a Trane suspended air-conditioning unit equipped with four-row direct expansion coils.

In April of 1937 Mr. Flake's business amounted to \$4,300; 9,550 people were served, with an average check of 45 cents. After the air-conditioning system was turned on the number of persons served almost doubled. In August 15,400 people patronized the restaurant, to spend \$5,400. Gross income for each of the summer months was well ahead of April.

Newbury Heads Division Of Westinghouse

EAST PITTSBURGH, Pa.—Frank D. Newbury last week was appointed manager of the new products division of Westinghouse Electric & Mfg. Co., succeeding Herbert M. Wilcox, who died July 28.

Chicago's Orchestra Hall Will Have Mechanical Cooling Plant; Ice System Failed In Years Past

CHICAGO—Orchestra hall, home of the Chicago Symphony orchestra, is to have a new cooling system for the third time in three decades.

More than 20 years ago an attempt was made to cool the auditorium by placing ice in the air washer of the ventilating system. The ice melted so fast that the project was abandoned as too expensive. The following summer ice was placed in long tanks and the air blown over it, but this also proved to be too expensive.

The new \$50,000 air-conditioning system, which is part of a long-range program of betterment for the institution, will be ready for operation at the beginning of the forty-eighth symphony season, which starts this fall.

A contract for the work has been awarded to the L. H. Prentice Co. of Chicago.

H. M. Hart, president of the Prentice Co., was an employee of the concern years ago, and had charge of the original installation of Orchestra hall's ventilating system.

About 70,000 cu. ft. of conditioned air will be supplied to the building every minute. The main floor, boxes, balcony, gallery, and the stage will each receive independent treatment, so that temperatures will be even in all parts of the building.

Cooling equipment used in the Orchestra hall installation will include two compressors having a combined capacity of 180 tons.

Work on the project began under the direction of D. H. Burnham, son of the original architect of Orchestra hall, which was built in 1904. Henry E. Voegeli, who has been manager of the building for 39 years, and Edward L. Ryerson, Jr., president of the orchestral association, awarded the air-conditioning contract to the Prentice Co.

WHEN WASHINGTON SWELTERS



Capitol of the United States. Carrier Corporation, Syracuse, N. Y., Contractor; Charles S. Leopold, Consulting Engineer. "Freon" air conditioning by Carrier Corporation.

12,000 TONS OF "FREON"*

AIR CONDITIONING keep government buildings cool!

THE world's largest refrigerating machinery installation for air conditioning cools the Capitol group of buildings in Washington, D. C. Six 800-ton York units, using "Freon-12" refrigerant, give it a total capacity of 4,800 tons! Plants in other government buildings in Washington bring the total amount of "Freon" air conditioning to 12,000 tons!

"Freon" refrigerants are non-poisonous, non-flammable, non-explosive. They have been tested by the U. S. Bureau of Mines, and meet all specifications set by the Underwriters' Laboratories of Chicago. Make sure "Freon" refrigerants are included in your specifications for air conditioning.



FREON

REG. U. S. PAT. OFF.

safe refrigerants

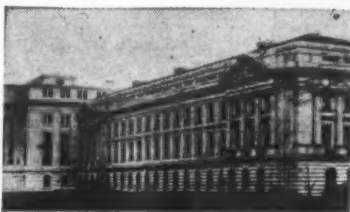
*"Freon" is Kinetic's registered trade mark for its fluorine refrigerants.

KINETIC CHEMICALS, INC., TENTH & MARKET STREETS
WILMINGTON, DELAWARE

Library of Congress Addition (right) — Jacobsen Bros., Chicago, Contractor; Pearson & Wilson, Architects and Consulting Engineers. "Freon" refrigeration for air conditioning by York Ice Machinery Corporation.



Department of Justice Building (left) — G. A. Fuller Co., Contractor; I. H. Francis, Consulting Engineer. "Freon" refrigeration for air conditioning by York Ice Machinery Corporation.

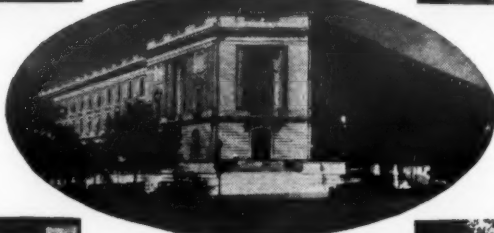


Dep't of Agriculture (Administration Bldg.) (left) — Riggs Distler, Contractor. Designed by Nat'l Park Service, Charles Leopold, Consulting Engineer. "Freon" air conditioning by Frick Co.



Post Office Building (right) — McCloskey & Co., Contractor; Mehring & Hansen, Sub-Contractors; Sykes & Hennessy, Consulting Engineers. "Freon" refrigeration for air conditioning by York Ice Machinery Corporation.

Department of Interior Building (Old) (below) — National Park Service, Consulting Engineer. Contractor and manufacturer of "Freon" air conditioning equipment — York Ice Machinery Corporation.



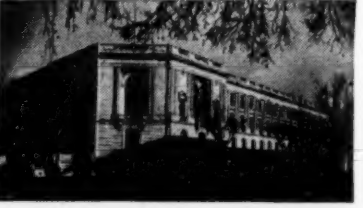
Archives Building (below) — G. A. Fuller Co., Contractor; Clyde R. Place, Consulting Engineer. "Freon" air conditioning equipment by York Ice Machinery Corporation.



Senate Office Building (above) — G. A. Fuller Co., Contractor; George A. Wechsler, Consulting Engineer. "Freon" refrigeration by York. Additional air conditioning by Kaiser Heating Co.



New House Office Building (left) — Pennsylvania Engineering Co. of Philadelphia, Contractor; George Wechsler, Consulting Engineer. "Freon" air conditioning by Pennsylvania Engineering Co.



Old House Office Building (right) — Pennsylvania Engineering Co. of Philadelphia, Contractor; Charles S. Leopold, Consulting Engineer. "Freon" air conditioning by Pennsylvania Engineering Co.

Profitable Sales Ideas

Pearl Oyster Raffle Is Just One of Dealer's Many Novel Sales Promotion Schemes

Novel promotion and publicity plans feature Dudley Vastbinder's managership of Central Electric Co., Hotpoint appliance dealer in Battle Creek, Mich. Perhaps the most successful promotion scheme was the raffling of Japanese pearl oysters. The store maintains fairly strict supervision of salesmen.

By Alfred Jones

BATTLE CREEK, Mich.—"Idea man"—that's Dudley Vastbinder, sales manager of Central Electric Co., local Hotpoint appliance dealership which also handles General Electric "packaged" commercial refrigeration, RCA-Victor and General Electric radios, all kinds of lamps and household electrical fixtures, and door chimes.

To boost sales, Mr. Vastbinder has, during his eight-year career with Central Electric, thought up novel promotion and publicity ideas ranging in scope from a Japanese pearl oyster raffle to the dropping of a Hotpoint range surface unit from an airplane 5,000 feet up.

The oyster raffle was one of the most successful promotion schemes in Mr. Vastbinder's repertoire. A shipment of oysters, each guaranteed to contain a real pearl valued at between \$7 and \$15, was ordered from a company in Japan which specializes in coaxing oysters to develop pearls. The coaxing is done by dropping sand inside the oyster when young, putting it back in the water to mature, and letting the oyster do the rest of the work.

RAFFLE DRAWS PROSPECTS

The sand in the oyster aggravates it so that the unhappy mollusk grows a pearl around the sand to stop the irritation.

To return to the raffle, the oysters arrived each neatly packaged in its own individual tin. Newspaper advertisements and handbills announced the raffle to the Battle Creek citizens.

On the night of the raffle, the Central Electric store display space was cleared, chairs brought in, the stage arranged, and everything made ready for the event. Hundreds of people received tickets at the door and jammed into the store to see the lucky numbers drawn and to applaud the pearl winners as they went up to collect their prizes.

Of course, numerous good prospects for Hotpoint refrigerators, ranges, washers, and ironers, and for other merchandise in the store, were selected from the names on the raffle tickets, and many sales resulted.

The drop-from-the-airplane stunt was an equally sensational attention-getter, and was responsible, directly

and indirectly, for extra Central Electric sales.

Mr. Vastbinder arranged for the demonstration to be held at the city airport, and the mayor, civic leaders, and a host of citizens were on hand.

An ordinary surface burner unit from a standard Hotpoint electric range was taken up in the airplane, and from a height of 5,000 feet above the airport the unit was dropped.

Examination showed little damage, the news photographers took pictures, and the resultant publicity firmly lodged the name of Central Electric Co. in the Battle Creek public's collective mind.

Other ideas which have sprung from Mr. Vastbinder's ever-working mind have resulted in a series of successful cooking demonstrations, unique newspaper advertisements, and a highly efficient plan to supervise and stimulate the sales crew of nine men and three women.

ADVERTISE HEAVILY

Mr. Vastbinder estimated that in one year alone Central Electric had 10,000 lines of newspaper advertising. One of the largest crowds ever to be assembled in a dealer's store in this part of the country was attracted by a cooking demonstration which Central Electric arranged on its kitchen-unit display platform.

This man who manages Central Electric's sales is not much over 35 years of age, stands about 6 feet 2 with a proportionate build, is quietly modest, and has the exact personality to fit his job.

He is married, and has three children. The eldest son is 13 years old, another son is eight, and the baby daughter is just one year old.

When he has time, which has been on very rare occasions the past year or two, Mr. Vastbinder likes to go fishing.

His office at Central Electric is upstairs on the second floor, partitioned off from the sales meeting room where most of his promotion ideas are officially launched.

Up on the wall behind his desk is a huge chart on which is recorded the progress of each member of the sales staff in the current Hotpoint "Eight Ball" contest. Another chart on the side wall supplements the information on the contest by showing how far each salesman or sales

woman has advanced in the mythical journey to Chicago, headquarters of the Hotpoint manufacturer, Edison General Electric Appliance Co., Inc.

Central Electric's sales force is composed of veterans, most of the members having been with the company for several years. The least any one has worked under Mr. Vastbinder is two years.

Highly satisfactory work has been done by the three women on the staff, Mr. Vastbinder said, and he likes to have them working with him principally because they are able to do a better job of selling to women prospects than are the men salesmen.

Then, too, the sales women are not tempted like the men to waste much of their time in pool halls, at bars, and in "talking with the boys."

THREE WOMEN

The three women members of Central Electric's sales crew are Mrs. Enola Odom, Hotpoint factory-trained home economist who developed into a good sales lady; Miss Doris Smith, who began by working on floor sales and moved up into the regular sales force; and Miss Gertrude Fisher, who was hired two years ago as a full-fledged sales woman.

Fairly strict supervision of the sales force is maintained, Mr. Vastbinder declared, each member being required to check in at the store each working day at 8 a.m., 1 p.m., and 5 p.m.

The early morning report is in the form of a brief sales meeting and "pep" talk, and serves to start the day right.

However, the salesmen and sales women enjoy the privilege of open territories and are free to sell anything and everything in the store's stock to any and every prospect they discover. Territories are protected only in deals made on the display floor.

'FREE-LANCE' POLICY

The sales policy of Central Electric used to limit the salesmen to certain products and provided for closed territories, Mr. Vastbinder explained, but this system did not work out so well, and the present arrangement was agreed upon.

This "free-lance" policy has resulted in increased sales and greater harmony and cooperation on the part of the sales force, Mr. Vastbinder declared.

Each sales person is given a small drawing account, and receives a straight 10% commission. A tenth of his commission is kept as a hold-back for him to draw on when his sales drop.

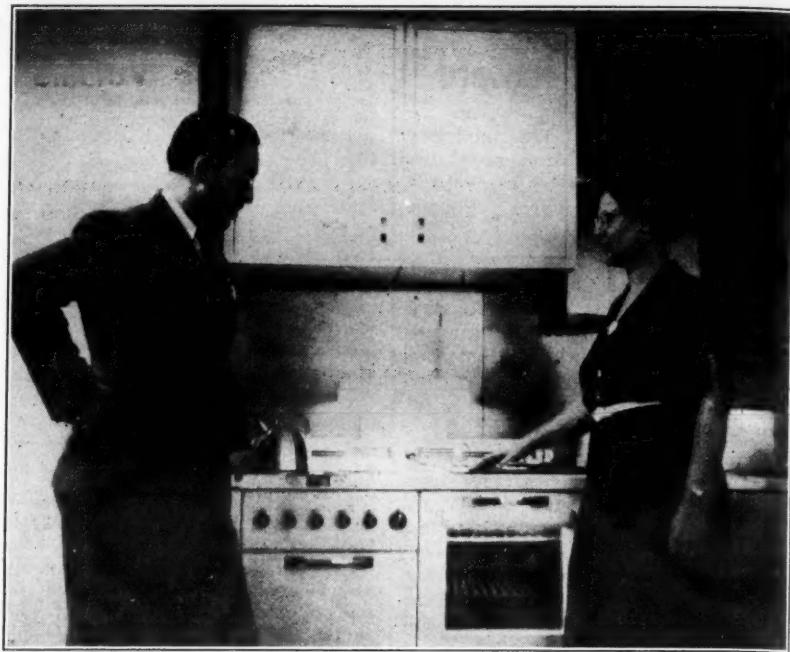
The hold-back is regarded as a sound idea by both the company and the salesmen themselves, said Mr. Vastbinder.

A booster fee of 2% for a customer who turns in a prospect's name is paid out of the salesman's commission when, as, and if the tip is turned into a sale.

A 1% allowance for supervision runs the sales maintenance overhead to 11%, explained Mr. Vastbinder.

As an incentive to salesmen to cut down trade-in allowances, there is a "Christmas Club" from which the

Manager and Home Economist Confer



Mrs. Enola Odom, home economist, and Dudley Vastbinder, sales manager, confer on a promotion plan for Central Electric Co.

salesmen are paid savings at the end of every six months.

To illustrate the way in which the Christmas club operates, the following hypothetical example was given by Mr. Vastbinder: Suppose Central Electric establishes a trade-in allowance of \$10 on a used gas range. A salesman has a prospect who wants to trade in her gas range on an electric range sale. If the salesman can get the prospect to accept an allowance of \$5, Central Electric will split the difference with him.

Thus, by creating a saving of \$5 on the trade-in, the salesman earns half of this saving, or \$2.50. Central Electric gets the other \$2.50. The

salesman's share is credited to him in his Christmas club account, and at the end of six months, that is at the end of June and at Christmas time, the salesman is paid.

To facilitate bookkeeping, the appliances handled by Central Electric are divided into three departments: radios and refrigerators, ranges and water heaters, and washers, ironers, and laundry equipment.

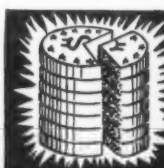
The salesman or sales woman who sells the greatest money volume of appliances in each department in one month receives an over-ride of 1% on the department, and becomes

(Concluded on Page 5, Column 1)

Prospect Card Aids 'Use the User' Plan

Prospect Name	John Doe
Address	3497 Washington St.
Remarks	Wants discount for cash
Reported By	Mrs. Samuel Smith
Date Sold
Model
Price, \$
Washer	
Ironer	
Radio	
Refrig.	X
Range	
Special	
Salesman No.	13
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 X 18 19 20 21 22 23 24 25 26 27 28 29 30 31	
John Doe	3497 Washington St.
	13

Prospect card filled out as described in story. The "X" indicates that card was made out on the 17th of the month.



MR. DEALER—HERE'S A NEW SLICE OF PROFITS



The New, Sensational

SILENTAIRE

The modern, compact, electric window ventilator — FILTERS — VENTILATES — CIRCULATES — ELIMINATES NOISE, DUST, POLLEN — DRAFTS. Floods the room with fresh, pure vitalizing air. Silentaire gives you a new, Year-Round Seller — no engineering — no

plumbing — no wiring. Fits any window. Just plug it in and let it sell itself. Every home, hotel, hospital, apartment, office, school is a prospect. Room conditioning at a Popular Price. Write for dealers' discounts and complete details today.



Berger Manufacturing Division

REPUBLIC STEEL CORPORATION CANTON, OHIO

Another Example of CURTIS' Advanced Engineering Features

The CURTIS Flywheel Assures Double Protection and Quiet, Smooth Operation

● Flywheels on Curtis compressors are of heavy type, fully and accurately balanced, fitted to the crankshaft on a tapered hub sturdily keyed to the shaft and securely held in place by a nut and positive lock washer. This assures double protection as well as positive drive. Multiple "V" belt drives result in quiet, smooth operation of Curtis units.

Precision engineering and advanced design are responsible for the outstanding performance record of every Curtis compressor and condensing unit. It will pay you to investigate the many advantages offered by the complete Curtis line; models for every requirement, from 1-6 to 30 H.P.

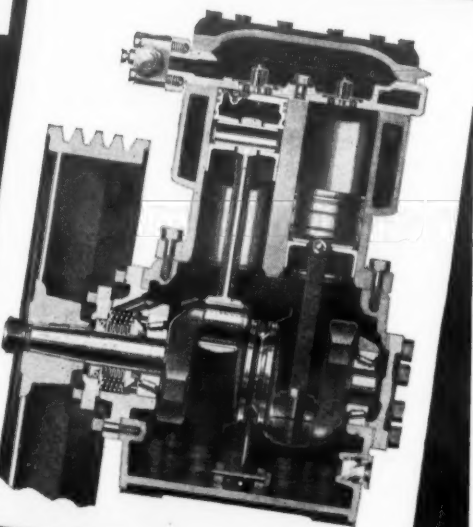
Write to Curtis today for full information.

CURTIS REFRIGERATING MACHINE CO.

Division of Curtis Manufacturing Co.

1912 KIENLEN AVENUE

ST. LOUIS, MO.



CURTIS

"Builders of Condensing Units Since 1922"

—for every air conditioning and refrigeration requirement.

Efficient Card Index Maintained as Aid In Selling Prospects

(Concluded from Page 4, Column 5)
supervisor of the department for the following month.

Since "using the user" is Central Electric's most successful method of creating more sales, Mr. Vastbinder explained, an efficient card index filing system is maintained.

On his daily calls, each salesman takes notes on prospects suggested by Central Electric customers, and when he returns to the office he makes out a card for each of these prospects.

The prospect card is a yellow form 6 inches wide and 4 1/2 inches high. A perforation line 3 inches down from the top of the card divides it into two sections.

LAYOUT OF CARD

Top section is made up to present the following concise information: prospect's name and address, remarks, name of customer who reported the prospect, salesman's identification number, and kind of appliance said to be wanted by the prospect.

Provision also is made for the date, model, and price of the eventual sale.

The lower portion of the card is numbered across the full width from 1 to 31, these figures representing the days of the month. The salesman blocks out the day on which he fills out the card. Below this strip of numbers is another perforation line across the card, so that the row of numbers may remain attached to either the body of the card or the stub.

'OPEN' AFTER 60 DAYS

On the stub of the card, which is about three quarters of an inch high, the salesman repeats the name and address of the prospect, and his own identification number.

After it is filled out, the prospect card is placed in the index file, where it remains for a maximum of 60 days. If the salesman fails to close the deal within that period, the card is removed from the file, and the stub is torn off to become "open game" for anybody.

At the end of another 30 days, if there still has been no sale effected, the entire prospect card is destroyed.

Central Electric's sales records show that most of the prospect cards are completely filled out with the date of sale, model, and price before the "exclusive" period of 60 days has expired.

SERVICE MEN HELP

Another valuable source of prospects is the service department, the service men being able to determine what additional appliances a customer may need when they call to check appliances already sold by Central Electric.

Not long after Central Electric Co. was organized as a retail outlet, it had expanded so much and increased its business so greatly that an off-shoot was given root as a wholesale distributor.

The latter is now the Central Electric Supply Co., and although the two organizations are just across the street from each other and are on what might be termed an informally intimate relationship, they are distinctly separate companies.

20 Appliances Sold as Town Gets Electric Power

CHATHAM, N. H.—Dealers report that 20 electrical appliances have already been sold in this small town, where on July 27 all the people joined in a gala celebration of completion of an electric power line to the community by the Public Service Co. of New Hampshire. Chatham had been one of the few hamlets in the state that had never had electric service.

Mrs. Henrietta S. Chandler, a member of the celebration committee, proudly announced:

"I've got two vacuum cleaners, a washing machine, a hot water heater, an electric stove, a coffee percolator, a bread toaster, and even a corn popper, and I've just started."

Dealers from nearby cities report installations of refrigerators and washing machines and say more installations are being made daily.

Distributor-Dealer Doings

New Orleans Drive Brings 'Cash' Results Plus Continuing Interest on Part of Salesmen

NEW ORLEANS—Sales of 128 refrigeration units with an aggregate value of \$26,130 on the first day of the drive started off with a bang the refrigeration campaign currently being sponsored here by New Orleans Public Service, Inc. and New Orleans Electrical Association (see NEWS for Aug. 10).

Sales since that time, although below the level of the first day's activity, have been consistently high, association officials report.

Scheduled to start June 13, the campaign was delayed and actually broke June 27, which was dubbed "electric refrigeration day" by the New Orleans "national sales campaign" committee. The impetus of this publicity doubtless helped swell the day's sales.

The "pep breakfasts" featuring this campaign have been well attended. Some 242 salesmen and sales managers of the 25 firms participating in the drive attended the first of these morning meetings, and this number rose to 289 at the second.

Some sales managers, impressed with the results of these bi-weekly

meetings, have been holding breakfasts each morning for their own men.

Recent Sales Rise Noted By Carrier Dealer

DAYTON, Ohio—L. O. Warner of Refrigeration Service Shop, Inc., 66 Stratford Ave., in charge of Carrier sales, reports that while his air-conditioning business volume during the past year is under the same period of a year ago, an upturn in sales has been noted during the past two weeks.

Warner recently completed the installation of an air-conditioning job in the restaurant of Edward Wren & Co., a leading department store in Springfield, Ohio. Two Carrier 50-L-5 self-contained units, furnishing 12-ton capacity, were placed on the outside of the room, with ductwork being used to bring in the air at opposite sides of the space.

In Xenia, Ohio, Warner has completed the installation in the Orpheum Theater of a 10-hp. compressor, utilizing a Carrier 29-N surface dehumidifier. The old fan and duct system in the theater was used, making the installation more economical.

Jewell's Electric Dealership Formed In Utica, N. Y.

UTICA, N. Y.—Jewell's Electric, Inc., has been organized here to retail refrigerators, ranges, radios, washers, ironers, air-conditioning equipment, and other household appliances.

President of the new company is Leon Jewell, who also is owner of Jewell's Auto Radio Installation Station.

The new dealership will handle Standard Electric ranges, Apex refrigerators, Philco radios, Yorkaire air-conditioning units, and Ohio oil circulating heaters.

Sterchi Bros. Furnishes Home For Promotion

GADSDEN, Ala.—A novel home show which attracted 1,000 people in three days was sponsored here recently by the local branch of Sterchi Bros. furniture store.

A two-story home was furnished outright, and a contest initiated among local club women as to which room was the most attractively equipped. Two home economists from Alabama Power Co. were on hand to demonstrate kitchen appliances.

Taylor Buys Arkansas Stock, Moves To Larger Quarters

JONESBORO, Ark.—The Joe A. Taylor Electric Co., dealer for Philco radios and Frigidaire, has moved into larger quarters at 508 South Main St. The company has purchased the entire stock of appliances of the Arkansas Power & Light Co. here.

McDaniel Opens Frigidaire Dealership In Virginia

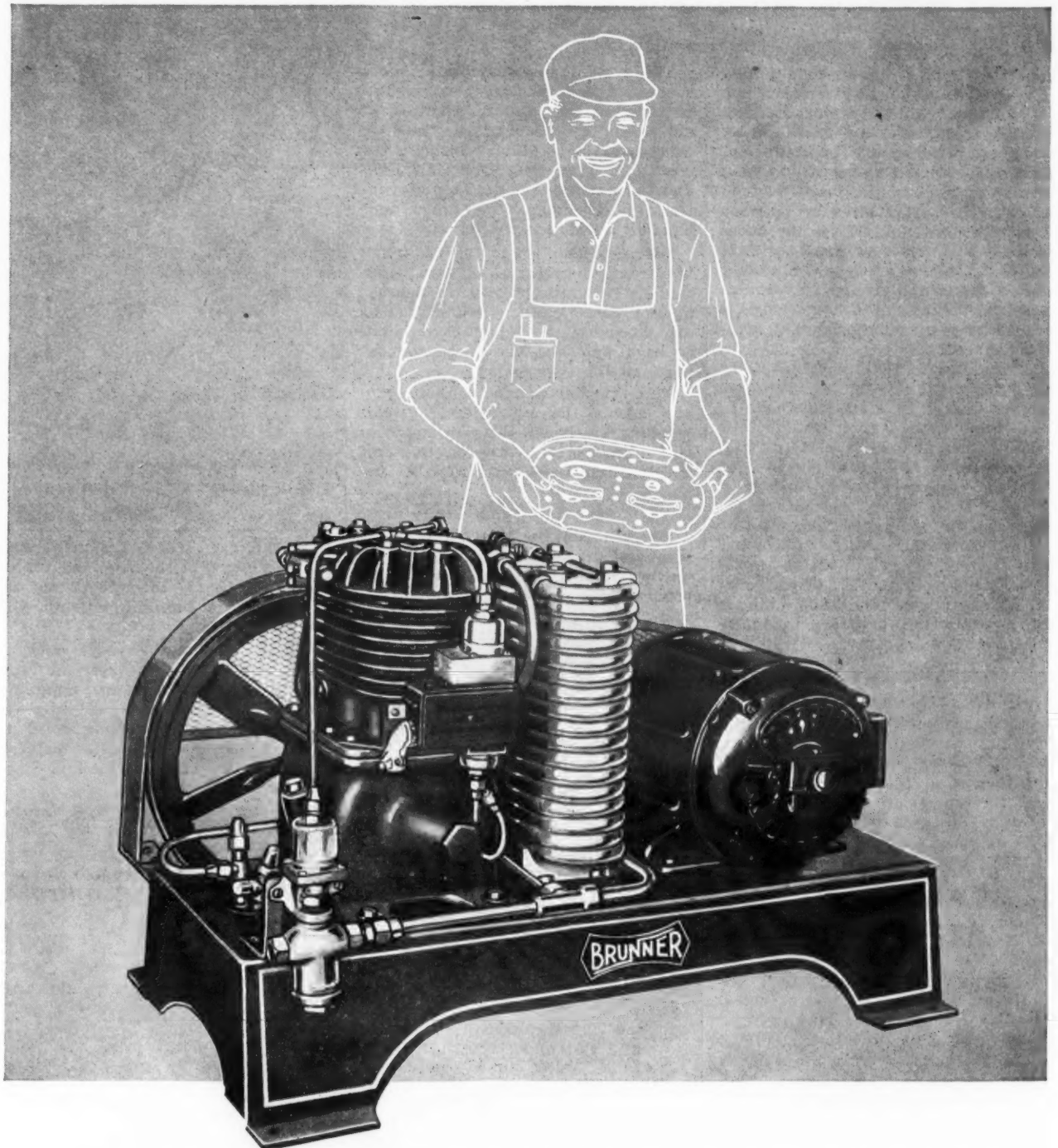
PURCELLVILLE, Va.—L. K. McDaniel has just opened an appliance dealership here to handle Frigidaire refrigerators, ranges, and water heaters, as well as Easy and Automatic washers. To get the store off to a good start, a range demonstration was conducted by Miss Lansden and Miss Sheets of Virginia Public Service Co.'s home service department.

Maytag Electric Store Moves To Remodeled Quarters

CROSBY, N. D.—The Maytag Electric Store has moved to larger and remodeled quarters in the Fred Hughes building here.

Stanley Howard, store manager, is assisted by Mark Woodward, in charge of service, and Ernest Ostgulen, in charge of radios.

The store is owned by John Iverson, who owns an appliance store at Glasgow.



HERE'S HOW TO "CROSS THE BRIDGE" OF REPAIRS BEFORE YOU COME TO IT!

A good many manufacturers like to "soft pedal" the possibility of repairs. But here at Brunner we like to be practical about it. It's like this: The finest mechanism ever constructed ultimately needs repairs, here and there. Everybody knows that. True, Brunner long-duty construction cuts repairs to a minimum. But, at a future date, when repairs are required, you'll find them **less expensive** on a Brunner. Brunner parts are so precisely machined within close tolerances that replacements slip easily into place—fit perfectly. The valves, so commonly the source of delayed operation in some equipment, are designed as a complete unit assembly on all Brunner models, readily replaceable by any mechanic. No experts needed! Throughout the Brunner construction you find the same precautions taken to reduce the frequency and expense of repairs. Ask any Brunner user . . . Full particulars on Brunner Refrigerating and Air Conditioning equipment await your inquiry. Condensing units, air and water cooled, up to 15 H. P. Brunner Manufacturing Company, Utica, N. Y., U. S. A.

IT'S **BRUNNER**
FOR *economical* SERVICE

Air Conditioning

Four Basic Methods of Applying Central Station Air-Conditioning Systems Analyzed For Their Best Use

By Henry Knowlton, Jr.

APPLICATION of air-conditioning equipment to a given problem in a manner which obtains the best possible results is one of the most widely discussed subjects in the entire industry. Engineers do not always agree on the best way to accomplish a given result, whether it is to secure comfort for the occupants of an office, obtain accurate control of temperature and humidity for an industrial process, or remove a large volume of smoke from a crowded restaurant during the conditioning process.

Many application methods are available to the designing engineer, and the majority of the methods in use today will give satisfactory results when adapted to certain types of structures for the purpose of meeting certain specific conditions.

Aside from highly specialized applications and simple "room-cooler" installations, installation of cooling and conditioning equipment in a given building may be made according to any one of four basic methods which are widely used and generally accepted.

SYSTEMS EXPLAINED

An explanation of how these four methods operate has recently been made available to the distributing organization of the Frick company together with four drawings showing the operation of the different systems.

The first of these methods is known as the "Multiple Unit System," illustrated in Fig. 1, which has been patented by the Frick Co. While a single conditioning unit may be used in similar applications, Frick engineers point out certain advantages of this type of system.

Multiple unit systems are recommended for smaller stores, restaurants, and other installations of 30 hp. and under, where the relative humidity may be permitted to vary within the comfort zone.

The patented two-stage control permits use of this system where temperature control only would be inadequate.

The system employs two or more suspended conditioners, which maintain air motion and distribution at all times, by keeping the fans in continuous operation during the conditioning season. One unit handles the fresh air required for ventilation and leakage, the other unit handles only recirculated air.

Refrigeration is controlled by a two-stage thermostat, or two separate thermostats set several degrees apart. Electrically operated valves are placed in the liquid Freon lines to each unit and are wired to contacts on the thermostat.

The first instrument making contact opens the valve on the unit handling fresh air. The second contact controls the valve on the unit which handles 100% recirculated air.

PRESSURESTAT CONTROL

Operation of the compressor is by means of a pressurestat in the Freon suction line. As the amount of refrigeration needed rises or falls under varying loads, the suction pressure increases or decreases. These fluctuations start and stop the compressor.

This control arrangement keeps the dry-bulb temperature constant, and keeps the relative humidity in the conditioned space from rising in periods of mild weather.

The reasons for this are that "less air is cooled through a wider range"; the compressor is run only when refrigeration is required, and under efficient operating pressure; and finally because the initial cost is less than other systems more applicable to larger installations.

According to engineers for the Frick company, more than 30 claims have been allowed under two patents for the "multiple unit system." Patents covering the control system are Nos. 2,104,851 and 2,112,520.

CONTROLLED AIR VOLUME

The second method, illustrated in Fig. 2, is the "Controlled Air Volume System," which operates best on applications having a large sensible load, and low latent heat load.

Systems serving areas where there is not much moisture to be taken out of the air, and in which the occupancy is low compared with the amount of air handled, such as an

Fig. 1—Multiple Unit System For Small Jobs

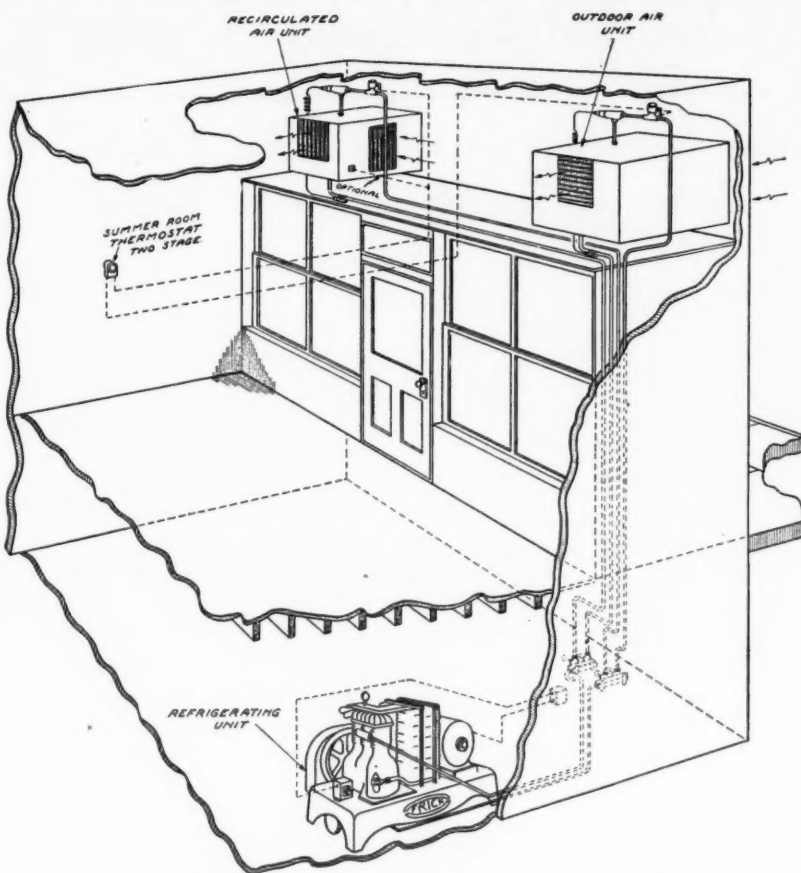


Fig. 1—The Multiple Unit System (patented). Note units for recirculated and outdoor air distribution. Air enters the room directly, as shown, or through ducts connected to one unit.

office building, where the main load is the removal of sensible heat representing leakage through walls or radiation from lights, have employed this method successfully.

In this system the proportions of recirculated and outside air are regulated by means of manually operated dampers. The mixture is pulled through the cooling coils by the fan and discharged through an automatically operated damper into the distributing system.

This damper may vary air volume about 30%, or between 70 and 100%

installed to stop the compressor in case of too high or too low operating pressures.

Humidity is controlled through the humidistat which operates the damper in a discharge air duct, regulating the volume of air circulated.

As the dry-bulb temperature varies, the thermostat regulates refrigeration supplied. As the humidity rises, the automatic damper is closed.

This procedure cools "less air through a wider range," reducing the relative humidity in the conditioned space. As the humidity falls,

In spaces where individual cooling units are not desired, or are not practical, this system is inexpensive to install, requires little attention, and when properly proportioned is economical in operation.

The "Automatic By-Pass System," which is patented by the Auditorium Conditioning Corp., is illustrated in Fig. 3. It is used by many engineers in buildings having high latent heat loads, caused by moisture from large groups of people, cooking and hot foods, and generation of water vapor from other sources.

It is recommended for large restaurants, theaters, auditoriums, and other places where there is a high concentration of people.

In this system the proportions of recirculated and outside air are regulated by means of manually operated dampers, as in the case of the Controlled Air Volume System. Here, however, there is an automatic by-pass around the coils, the amount of air being circulated through this by-pass being governed by a motor operated damper in the by-pass duct.

DAMPER VARIES VOLUME

The by-pass damper varies the air passed through the cooling coils about 60%, or between 40 and 100% of the fan capacity. At the same time it maintains constantly the total volume of air circulated by the fan through the distributing system.

A modulating thermostat in the treated area operates a modulating motor on the by-pass damper so that an infinite number of positions may be held between the open and closed positions. This varies the amount of air by-passed around the coils as the temperature fluctuates.

The refrigeration is controlled by an auxiliary switch on the motor-operated damper, which stops the compressor when the damper is opened wide, and starts it when the damper is closed or partially closed.

HUMIDITY CONTROL

The humidity is controlled indirectly by the variation in the amount of air by-passed around the cooling coils. A dewpoint thermostat may be wired in series with the auxiliary switch on the automatic damper if

Fig. 2—Controlled Air Volume System For Low Latent Loads

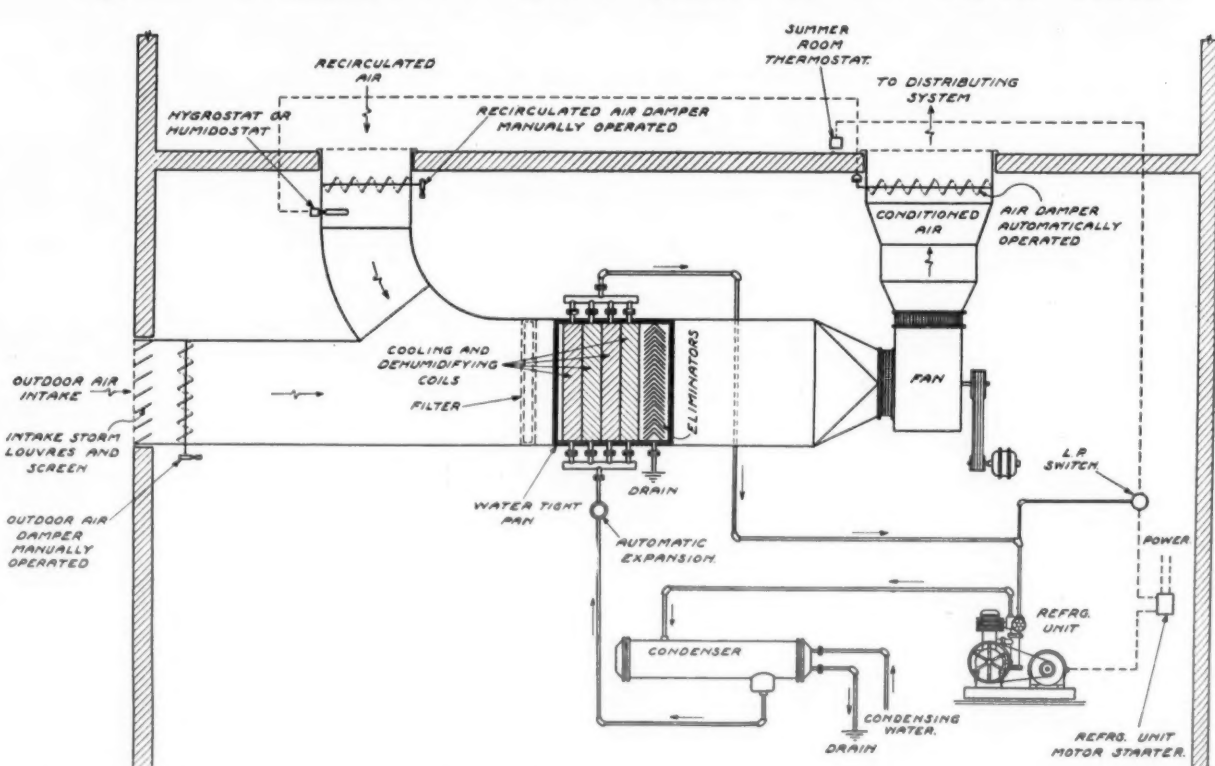


Fig. 2—The Controlled Air Volume System, showing arrangement and use of each part. Volume of air entering the distributing system may be reduced to 70% of fan capacity by means of automatically operated air damper in conditioned air supply which is controlled by humidistat located in the recirculating air duct.

of the fan capacity. The distributing system must, therefore, be able to handle these varying quantities of air satisfactorily without creating drafts or pockets.

Refrigeration is controlled by a thermostat in the conditioned space, which starts and stops the compressor. Automatic safety controls are

the damper is opened, narrowing the cooling range and reducing the quantity of moisture condensed out of the air by the refrigerant coils.

This system gives more accurate control of humidity than the preceding system and does its regulating automatically. The controls are comparatively simple.

desired. The usual safety features are also incorporated in the compressor control.

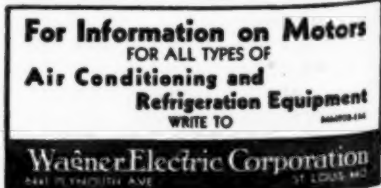
When the air temperature in the conditioned area is high, the thermostat closes the by-pass damper and circulates all the air through the cooling coils. As the temperature drops the by-pass damper is gradually opened until the temperature reaches the lower limit when all the air is by-passed around the cooling coils, and the refrigeration is shut off.

In this system also, under partial loads, "less air is cooled through a wider range."

(Concluded on Page 7, Column 1)



MERCHANT & EVANS CO.
Phila., Pa., U.S.A. Plant at Lancaster, Pa.



'Direct System' Cooling Applied Successfully In Auditoriums

(Concluded from Page 6, Column 5)

If a dewpoint thermostat is furnished, it will keep the compressor shut down even though the by-pass damper is partially open, if the dewpoint of the air is low enough to produce the desired humidity. This saves refrigeration and prevents the air from dropping below the point necessary to comfort.

Due to its ability to vary more widely the quantity of air passed over the cooling coils, more latent heat can be removed than with the previously described systems. Distribution problems are simplified, as a constant volume of air is circulated. This is especially important on jobs having a multitude of small rooms.

Where the ultimate in control of temperature and humidity is desired, many engineers favor the "Direct System" illustrated in Fig. 4.

This system is of special use where the proportion of latent heat to the total load is high, and where the total load is high in proportion to the volume of air circulated.

FOR AUDITORIUMS

Auditoriums having a high occupancy factor and low ceilings are conditioned satisfactorily by the Direct System.

In this system the fresh air intake and recirculated air ducts contain manually operated dampers. Air entering from outside is cooled to the point where some of the moisture is condensed out before it is mixed with the recirculated air.

The mixed air then passes through another bank of cooling coils, eliminator plates, and then through reheating coils. If the air has become too cold for comfort in the process of removing moisture it is reheated to the proper point by the reheating coils.

The air passing through the system is cooled low enough to condense out sufficient moisture to give the required humidity. If the resulting air temperature is too low, the reheating coils raise the temperature. Operation of the Direct System varies considerably from the other

Fig. 3—Automatic Bypass System For Removing High Latent Loads

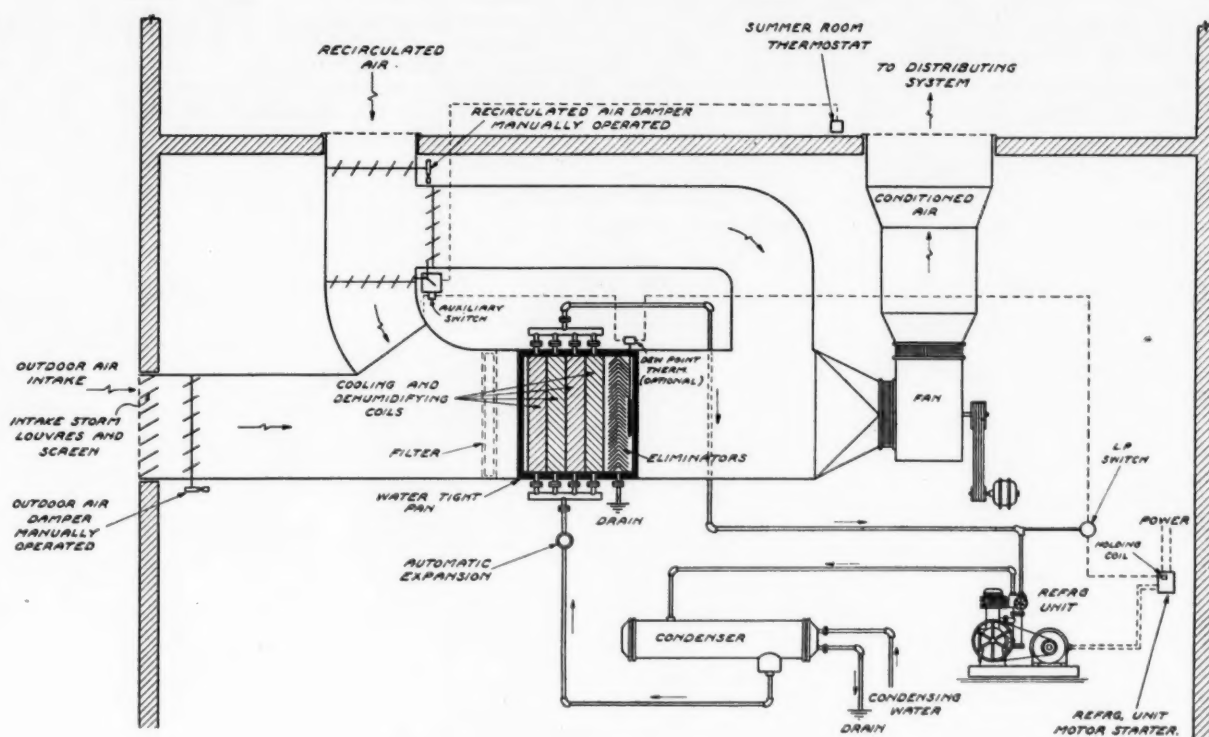


Fig. 3—The Automatic Bypass System (patented by the Auditorium Conditioning Corp.), one of several typical combinations offered.

three systems described. This system "cools all the air and then reheats it."

When the humidity rises to the maximum desired the pump starts circulating water through the coils, absorbing heat from the incoming fresh air.

From these coils the warm water is discharged through the reheating coils which raises the temperature of the circulating air and lowers its relative humidity. If this heat, plus the sensible heat absorbed in the conditioned area raises the temperature above the desired point, the thermostat starts the compressor refrigerating the cooling coils. This condenses moisture out of the air and the air with lowered dewpoint requires less heating to obtain the desired humidity.

A thermostat in the conditioned area operates the compressor according to temperature requirements. A humidistat in the recirculated air return duct operates a water pump

which supplies warm air to the reheating coils. Standard safety controls are furnished for the compressor.

Engineers have found that the accurate control of air conditions possible with this arrangement can hardly be duplicated with any other

system. Properly dehumidified air can be produced at a dry-bulb temperature within 3° of the dry-bulb temperature of the recirculated air or 6° of the outside dry bulb, whichever dry bulb is higher.

On mild days this system prevents the refrigeration being shut off be-

fore proper dehumidification has been obtained, and prevents unduly low temperatures when dehumidification is obtained.

Cost of this system is higher than the other three, because of the coils, pump, and additional connections in the absorption reheat cycle.

An analysis and comparison of the four air-handling systems illustrated here indicates that air engineers can hold temperature and humidity within very close limits when the owner is willing to bear the expense of a first-class system.

Harold T. Welch To Handle Appliance Sales of G-E Supply In Columbus

COLUMBUS, Ohio—Harold T. Welch has been appointed appliance sales manager of General Electric Supply Corp. here, it has been announced by Fred K. Bybee, district manager. Mr. Welch, who has been identified with the electrical industry in Columbus and central Ohio for the past 22 years, succeeds E. S. Klosterman, who resigned recently.

Lincoln, Neb. Store Plans For Cooling

LINCOLN, Neb.—Funds have been allotted for a \$60,000 air-conditioning system by Ben Simon & Sons clothing store, the system to be installed in a new five-story building on which construction will start Sept. 1. The type and make of air conditioning has not yet been decided upon.

Direct System Obtains Best Control

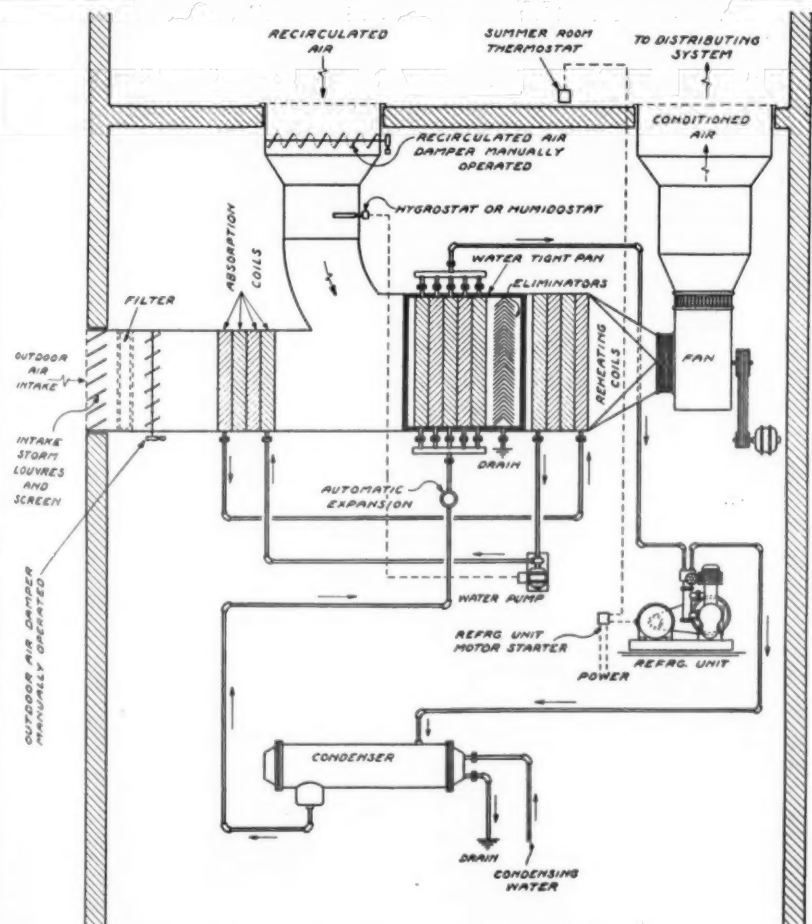


Fig. 4—The Direct System. Note absorption coils connected to reheating coils and water pump, which is operated by hygrometer in recirculated air duct. Compressor is controlled by room thermostat. Air volume is constant from the fan.

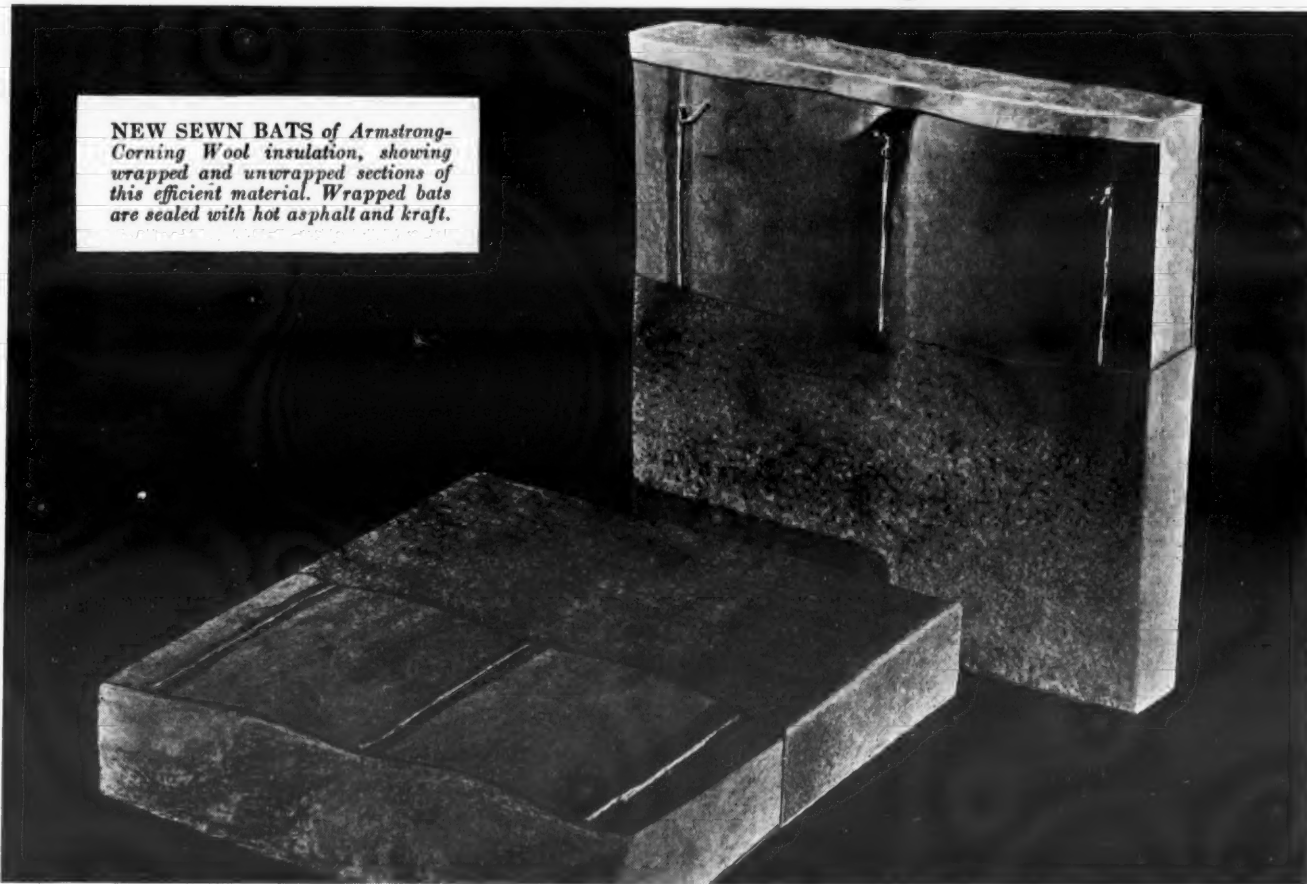
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COMMERCIAL REFRIGERATION and AIR CONDITIONING

Are your requirements large or small, standard or special? Servel can help you! Write today to Servel, Inc., Electric Refrigeration Division, Evansville, Ind.

VARIOUS FORMS MAKE THIS INSULATION *suit many types of equipment*

NEW SEWN BATS of Armstrong-Corning Wool insulation, showing wrapped and unwrapped sections of this efficient material. Wrapped bats are sealed with hot asphalt and kraft.



Armstrong-Corning Wool now offered in sewn bats—plain or wrapped . . .

Efficient Armstrong-Corning Wool, the new resilient insulation, offers builders of refrigerated equipment many extra advantages. Thanks to the wide variety of forms in which it is made, the exact type to suit your equipment and construction methods can be selected. This means easier, more economical handling. Consider the new sewn bats of Armstrong-Corning Wool. In plain form, these bats are ideal for equipment which uses easily sealed

construction—such as all-steel domestic refrigerators. The wrapped sewn bat is completely sealed with kraft paper and hot asphalt. It is ideally adapted for use in equipment which is harder to seal—such as display cases, walk-in coolers, and portable room coolers.

Additional advantages of this fibrous glass insulation are its low thermal conductivity, its permanent resistance to moisture, and its lasting resilience. These qualities assure long, efficient service life.

In addition to Armstrong-Corning Wool, Armstrong offers a line of insulating materials for equipment which meets every construction and service requirement. Armstrong's LK Corkboard is highly efficient, long-lasting insulation for severe service at low temperatures. Armstrong's Temlok is a rigid fibre-board that is strong, efficient and offers space-saving advantages.

Write today for complete details and samples. Ask us also about the Armstrong Life Test Room which tests the efficiency of your cabinet. Address Armstrong Cork Products Company, Building Materials Division, 1002 Concord St., Lancaster, Pennsylvania.

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AIR CONDITIONING & REFRIGERATION NEWS

Trade Mark registered U. S. Patent Office.
Established 1926 and registered as
Electric Refrigeration News

Published Every Wednesday by
BUSINESS NEWS PUBLISHING CO.
5229 Cass Ave., Detroit, Mich.
Telephone Columbia 4242

Subscription Rates

U. S. and Possessions, Canada, and all countries in the Pan-American Postal Union: \$4.00 per year; 2 years for \$7.00. All other foreign countries: \$6.00 per year. Single copy price, 20 cents. Ten or more copies, 15 cents each; 50 or more copies, 10 cents each. Send remittance with order.

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VOL. 24, No. 17, SERIAL NO. 492
AUGUST 24, 1938

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Private Brands Again

DEPARTMENT STORES have now swung all the way around the cycle from private brands to nationally advertised makes and back to private brands again—in the merchandising of household refrigerators.

Private brand electric refrigerators had their inception in the desire of department stores to get an automatic household refrigerator they could retail for \$99.50. Nowadays the private brand refrigerator is gaining new impetus because department stores feel they can't make money selling refrigerators at the low list prices imposed on them by the manufacturers of nationally advertised appliances.

Do Department Stores Lose on Appliances?

In the last four or five semi-annual meetings of the National Retail Dry Goods Association, much has been made of figures which purport to show that the average department store loses money on its electrical appliance department, and particularly on its electric refrigerator operation.

It's all a matter of bookkeeping, of course; but more stores which report their figures to the N.R.D.G.A. seem to show operating losses of from 5 to 11% on their appliance departments than stores which show operating profits.

If department stores do lose money on the sale of electric refrigerators, why do they continue to handle them? The answer is that actually they don't lose money.

Each appliance department is saddled with an assessment for store overhead and management which runs into a pretty penny; and so large is the dollar volume from the appliance department, that the percentage turned into the general overhead fund is too great to be foregone, even if the bookkeepers do wrangle the figures around to show an operating loss for the department itself.

More and more in the N.R.D.G.A. meetings the representatives of various stores have been paying heed to suggestions that private brands would give them a chance for increased mark-up. This tendency would indicate either that department store appliance managers who favor such a move are comparatively new on the job, or that they have short memories.

Private Brands Hard To Sell; Service Costly

Why? Because department stores tried to sell private brands several years ago, and were forced to give it up as a bad job, for two reasons:

(1) Private brands are comparatively hard to sell.

(2) Private brands have been costly to service.

After giving the private brand idea a thorough trial back in the early 1930's, department stores began clamoring for national brand franchises. They got them, too, in large numbers. Their heavy flow of floor traffic, their fine credit departments, and their local prestige made them most attractive to the national brand manufacturers.

Ever since, relations between manufacturers, distributors, small dealers, and department stores have been a continual headache to all concerned. Small dealers complained about the periodic sales of "specials" by the department stores. The latter were cut-price chisellers.

At first manufacturers granted extra-large discounts to department stores because they wanted the "prestige" of having their merchandise on the floors of these "key accounts." Then they discovered that no matter what discounts they gave, department store buyers were never satisfied—and they always had figures to prove that they needed a better deal.

As a result, negotiations between manufacturers, distributors, and department stores have arrived at a stalemate. The irreducible minimum in discounts having been reached, some department store buyers feel that they must turn elsewhere for merchandise.

What One Manager Has To Say

Sidney Reisman, appliance manager of Bloomingdale's in New York City, recently wrote as follows in the N.R.D.G.A. Bulletin:

"Department stores have played a part in the establishing of national brands. Yet retail prices are set by the manufacturer without regard to the retailers' operating costs. The markup afforded when selling at list prices rarely covers the cost of doing business.

"When forced to sell below list, as is frequently the case, there is no hope for profit. And again, many stores after promoting national brands for some time have had their sales franchise terminated in favor of other dealers.

"Department store merchandising methods are not always consistent with manufacturers' ideas of minimum purchase requirements. Nor with the idea of carrying and promoting the national brand manufacturer's complete line of appliances regardless of weak items or numbers. . . . The department store has proved itself the best medium for moving quantities of merchandise at a price quickly. Yet the appliance

They'll Do It Every Time . . . By Jimmy Hatlo



specials offered prohibit any kind of fair mark-up, as a rule. . . .

"We believe private brands are the answer until national brand manufacturers can evolve a scheme for making their distribution profitable to department stores."

The inconsistency in this attitude, of course, is obvious. If manufacturers raise retail prices so as to allow for larger discounts, these longer margins must be granted to the "small" dealers, also. Whereupon these "small" dealers could undercut the department stores still further—in better trade-in allowances or rebates.

Coldspot Isn't True Private Brand

Most frequently cited example of the success of private brand electric refrigerators is the high sales volume enjoyed by Sears Roebuck with the Coldspot. Yet those who bring up this argument overlook the fact that in the Coldspot the Sears organization has been promoting nationally a refrigerator of exceptional merit.

With their high volume, as a result of national distribution, Sears is able to absorb the high initial cost of good designers and good product engineering, just as the "national" manufacturers can do. With smaller volume and intense price pressure, the makers of private brand refrigerators would find it difficult to match either Sears or the "national" brand manufacturers.

Inconsistency In Private Brand Theory

When department stores tried private brand merchandising a few years ago, they discovered the truth of the above observation. They couldn't match value and appearance with the national brands. And after their service costs began to come in, their extra margins were more than eaten away.

To compete with the so-called "small dealers," the department stores must match their prices. To gain larger mark-up, they must go direct to small manufacturers for cheaper products. So they wind up with refrigerators which have small consumer acceptance and which are, in all probability, no greater values, to say the least.

LETTERS

'As We Are All Beginning To See'

4115 Buell Drive
Fort Wayne, Ind.

Editor:

It has been some time since I felt moved to make any comment on your editorials in the News.

I wish to say that I am as violent against political planned economy as you are for the obvious reason that the wrong kind of men can get in power and then it would be almost impossible to take this power away from them, as we are all beginning to see at the present time.

I do not think that any substantial persons in the country today would object to an economy that was ruled more or less by well balanced free traders of the tolerant type, such as you describe in your editorial of Aug. 17.

I think you have purposely or otherwise neglected a few very pertinent facts which have had a great bearing in the condition—we are in today.

If you remember we were very much under the rule of large business and financial interests when the depression first hit us back in 1929. At that time there were many very grave abuses practiced by large, financial combinations at the expense of "Mr. Tolerant Trader" and the public in general.

We were fast going back to the middle ages in that so-called "Economic Royalists" were getting a strangle hold on all the resources of the country and no sane man can doubt but what they intended to use those resources to enrich themselves and perpetuate their control as has always been done in the history of civilization.

We have just as much to fear from these men as we do from Political Planners.

A man who has been independent all his life does not realize how demoralizing it is to be just a small cog in a large industrial or financial combination with practically no control over his destiny at all.

Possibly you will say that there are wonderful opportunities for an ambitious man in a combination of this kind. If you think so, go to work for one for a while and find out.

I think Mr. Walter Lippman is right when he says that large industrial concentrations must be broken up and scattered over the country more so that the people will not be so utterly dependent upon temporary economic conditions in any certain industry.

This would also tend to make management better acquainted with the problems and interests of those that work in industry and put things back to the way they used to be in that a man could find something else to do if necessary. It would also expand the horizons of future generations in innumerable ways.

If large corporation management is interested in such dealings and can make money at it why should they

care whether they keep their personnel employed and "Mr. Tolerant Trader" busy or not.

In conclusion, if we expect to surmount our difficulties we are going to have to go back to the old theory of being concerned about the welfare of our neighbor as well as that of our own.

We all live together.

We cannot hope to live separately.

J. K. MARQUARDT

Answer: We are not lacking in knowledge of the evils and injustices which became rampant in the boom years which preceded the depression and we have no sympathy whatever for the get-rich-quick theories which dominated the public during that period.

But it wasn't just "Economic Royalists" who were reveling in excess profits. The gambling fever had swept the entire country. Office boys and housewives, small town bankers and farmers, truck drivers and waitresses were buying stock. They were all out to get something for nothing.

Back in the 20's smart stock-market manipulators made suckers out of the public (including a lot of so-called business men who should have known better).

During the 30's smart political manipulators have been doing the same thing. To hell with both of them, we say.

Difficult To Express

Fairbanks, Morse & Co.
Home Appliance Division
Indianapolis, Ind.

Editor:

The reasoning in your editorial appearing in the Aug. 17 issue interests me unusually. It reflects a great deal of study I am sure and states in a most acceptable manner the things that most of us feel about the New Deal philosophy but find it so difficult to express without being misunderstood.

I only regret that your editorial cannot be read and understood by the many millions of people whose best interest would be served by keeping ever before them the dangers inherent in the trend which our present government is taking.

W. P. JONES,
General Manager

It's 'Northern Hardware'

Northern Hardware & Supply Co.
Menominee, Mich.

Sirs:

We enjoyed reading the article in the REFRIGERATION NEWS with reference to our dealer, J. D. Pelton at Mackinac Island. In it you advised that Mr. Pelton buys his Crosley refrigerators and radios from the Northern Electric Co. However, he purchases them from us and has been one of our good dealers for a number of years.

A. B. LENDVED, Vice President

Enjoying Confidence

Kerotest Mfg. Co.
2525 Liberty Ave., Pittsburgh

Editor:

We believe that your paper has been a considerable help to the air-conditioning and refrigeration industry and that from past performance, you should continue to enjoy the confidence of those in the industry whom you are serving.

J. A. STRACHAN, Sales Mgr.

Refrigeration Supply Jobbers Give Their Own Views on Present Problems and Future Possibilities of Their Business In Answer To News Questionnaire

The refrigeration parts and supply jobbing business is a relatively new phase of activity in the refrigeration industry. In the very few years that jobbers have been active, there have come many changes and developments in their business.

Some weeks ago AIR CONDITIONING & REFRIGERATION NEWS set out to get the jobber's own viewpoint on some of the major trade problems that have presented themselves in the parts jobber setup. A questionnaire was submitted to each member of the National Refrigeration Supply Jobbers Association, requesting opinions on specific problems.

Returns on the questionnaires were not large as to number, but gratifying as to quality, for those who did answer in most cases took the time to do a good job of it, giving some enlightening explanations of their viewpoint on the various trade problems.

Also, the 18 replies received were representative of every section of the country except New England and the Pacific Northwest.

AIR CONDITIONING & REFRIGERATION NEWS offers the results of the survey on this and the following pages to bring readers up to date on the current thinking and attitudes of those in the refrigeration and air-conditioning parts jobbing business.

The following are the questions that were asked in the survey:

1. Are you selling commercial condensing units (high sides), and if so to whom do you sell them and for what purposes are they used? (1. New installations, 2. replacements.)
2. What success are you having in selling replacement parts made by the larger manufacturers of original equipment (such as Kelvinator, Frigidaire, etc.)? What are some of the problems in handling these parts?
3. Do you sell parts and supplies for air-conditioning installations? What kind of parts do you sell for these jobs, and what types of firms buy from you (commercial refrigeration and air-conditioning dealers, heating and ventilating contractors, sheet metal contractors, independent service and installation companies, air-conditioning contractors)?
4. Are the discount schedules and policies of the parts and supply manufacturers more in line with your thinking and the jobbers' interests than in the past?
5. Is there a greater tendency on the part of independent service engineers in your territory to sell high sides, both for original installations and replacements?
6. How do your independent service engineers' customers finance the sale of high sides or complete new installations?
7. Approximately what percentage of your sales are made to: (1) independent service organizations; (2) distributors; (3) dealers; (4) others?
8. Do you find it more profitable to: (1) operate over a large territory; (2) or concentrate your sales efforts in a smaller territory?
9. Do you appoint authorized dealers in restricted territories for the distribution of your line of high sides, or sell them to any service companies, dealers, case manufacturers, etc.?
10. Do you think the jobbers will serve the air-conditioning industry in the same manner they now serve the refrigeration industry?

sides, the big reason being that everybody is building them and offering them through every conceivable outlet from the 'wagon peddler,' 'curbstoner,' 'cut-rate' service man, contractor, or wherever they can drop one. Until this situation clears up, we are not interested."

Another southwestern jobber handles two compressor lines and describes the setup as follows:

"We are selling two types of high sides. The first line we are selling regularly as replacements on the smaller installations.

"We have a second line which we put out under our own trade name, using this for new and larger installations.

"We have not pushed the sale of units on new installations too strongly, for the simple reason that we felt it would possibly impair our relations with the service distributors in this territory to whom we sell other refrigeration and air-conditioning products and supplies."

A Pacific Coast jobber says:

"We have sold commercial condensing units for the past five years and at the present time practically all units sold are for new installations."

'Genuine' Replacement Parts Bring Headaches

Question

2. What success are you having in selling replacement parts made by the larger manufacturers of original equipment (such as Kelvinator,

Frigidaire, etc.)? What are some of the problems in handling these parts?

Answers

Thirteen of those replying sold replacement parts made by the manufacturers of original equipment. Of this number, two specified that they were successful; several mentioned that they sold very few, and the large percentage felt that there were several problems entailed in the sale of this equipment.

Chief among these were the following: (1) The poor margin of profit; (2) Difficulties in identifying the parts for the unit for which they are desired; (3) The fact that the manufacturers compete in this field with them and are able to sell the parts cheaper.

COOPERATION LACKING

Five jobbers did not sell these parts at all for the reasons given above, also because of the lack of cooperation they received from the manufacturers, and one of them because of his inability to get a franchise.

The question concerning the sale of genuine replacement parts of the major unit manufacturers, which has been one of the most controversial points in the jobbing business, drew considerable illuminating comment from many of those who answered the questionnaire.

"We believe that we would be able to do a very satisfactory job in handling replacement parts for such manufacturers," declares a midwestern jobber. "However, we have not had the opportunity of doing this.

"We have contacted both of these companies, but it seems that our distribution would overlap with their

present distribution and they have not felt it advisable to allow us to distribute their parts.

"In a certain company's recent experiment to sell parts through the jobbers we believe that their failure is due to the fact that they selected jobbers who were not the real factors in distributing this type of replacement parts.

"We have always felt that large manufacturers would make more money if they were to devote more time and effort in the promotion of the sale of new equipment of their own manufacture and leave the distribution of replacement parts in hands of those companies that are specializing in this type of business, namely the parts jobbers. . . .

"It is almost impossible for anyone to go out and sell a stock of parts to the average service company. The average service company buys parts only when they need them, although there are a few items which they stock.

"This means that anyone wishing to serve the service companies must carry a large variety of parts having a relatively small turnover. We are confident that the average unit distributor would have little or no interest in handling this type of merchandise.

"We, on the other hand, are set up to do this kind of business. We thrive on a large quantity of small unit and dollar sales in which we have a substantial profit. The unit distributor is set up to do business on a comparatively small number of sales having a small gross profit and carrying a comparatively small stock, all based on a large dollar unit."

Comments a concern which whole-

(Continued on Page 10, Column 1)

Sale of Condensing Units By Jobber Is Favored

Question

1. Are you selling commercial condensing units (high sides) and if so to whom do you sell them and for what purposes are they being used? (1) new installations (2) replacements?

Answers

Fourteen jobbers replied that they sold commercial condensing units; of these, nine specified that they sold units for both new installations and replacements; one sold only for replacement purposes; one only for new installations, and one sold units used mostly for household refrigeration replacement and ice cream cabinet use.

Those to whom the units were sold included dealers, service men, and installation contractors. (Of the 14 replies, two specified that they sold only to service men.)

Four jobbers replied that they did

not sell commercial condensing units. Reasons given included: (1) Not an item to be marketed through refrigeration parts jobbers channels; (2) Many makers are building these units and offering them through every conceivable channel, therefore not interested.

"In connection with this question," says a jobber located in an eastern state, "we note that there has been considerable agitation from certain dealers and distributors of equipment. However, let us not forget the fact that a dealer can purchase directly from a manufacturer the same equipment that we ourselves are handling.

"We do not make considerable effort to push this equipment. We advise dealers handling such lines as Kelvinator and Frigidaire of our stock on hand and of our position to serve them in the event that they may need a machine for a breakdown job or a new installation.

"We do not set up dealers on high sides. The equipment is open to anyone who wishes to purchase it."

A parts jobber operating in the southwest had the following comment on selling high sides:

"We have discontinued selling high

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Kerotest Diaphragm Packless 2-Way Line Valve No. 738-S with O.D. Solder Connections machined directly on the body, eliminating the use of adapters.

For Progressive Design and Fine Craftsmanship

KEROTEST

DIAPHRAGM PACKLESS VALVES

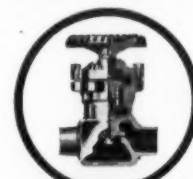
Accepted as standard by the manufacturers of the best refrigeration equipment in the world, Kerotest Diaphragm Packless Valves are preferred for their enduring, trouble-free service . . . truly the valves of eternal youth since their life can be prolonged indefinitely by the simple replacement of diaphragms without interrupting service from the line.

Now as a further improvement, Kerotest Diaphragm Packless Valves are made with sweat tube connections, as an integral part of the body. These O.D. Solder connections are machined directly on the body thus eliminating the use of adapters.

These valves are available for every line requirement in sizes ranging from 1/4" to 1 5/8". Warehouse stocks are carried by Kerotest Jobbers everywhere.



Kerotest 3-Way Diaphragm Packless Line Valve No. 737-S with O.D. Solder Connections integral with body.



Kerotest Diaphragm Packless Globe Valve No. 456-S with O.D. Sweat Connections.

KEROTEST

KEROTEST MANUFACTURING COMPANY
PITTSBURGH, PA.

Relationships With Manufacturers Have Improved, Say Parts Jobbers

(Continued from Page 9, Column 5)
sales parts in an eastern industrial city:

"We have had very little success in selling replacements and have found that the expense and work required to handle small parts do not in any sense justify going into this particular phase of the business to any extent.

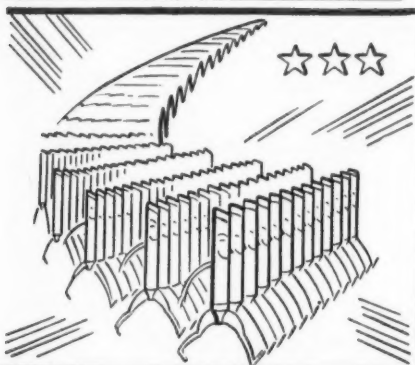
"The unit sales are small, the dollar and cents volume of business is small and the margin of profit up to the present time has not been sufficient to justify the amount of work required to go into the sale of original manufacturers' replacement parts."

One midwestern jobber reports success, but describes a principal problem in the merchandising of manufacturers' replacement parts:

"We are having considerable success in the sale of replacement parts made by the large manufacturers," he says, "where they are giving us their cooperation.

NOT PROPERLY IDENTIFIED

"The problem in connection with this is that the parts require more time to sell than any other line of our equipment. This is due to the fact that manufacturers do not have a 'breakdown' or identification number on the original units which make a definite selection of parts easy. We have to spend too much time at the city desk trying to determine what model parts are required for."



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PREVENTS CLOGGED REFRIGERATOR VALVES

A Pacific Coast jobber expresses his opinion in the following blunt manner:

"We find it rather difficult to merchandise the major unit manufacturers' replacement parts and still compete with the local factory branches.

"Their prices and discounts are lower than ours, and special concessions are made to customers of ours which we are unable to meet."

One midwestern jobber is enthusiastic about the situation. Says he:

"We have had very splendid success in selling replacement parts for practically all unit manufacturers."

Declares another midwestern concern:

"At the present time we are handling genuine parts of two manufacturers. Success to date has been satisfactory, but there is large room for improvement.

"The problem as we see it today is the fact that all manufacturers do not have similar programs and as a result only a few lines are available to jobbers at proper profit-making discounts.

"Should other organizations make their genuine parts available to the jobber, we feel that the jobber would be in a much better position to service the independent trade than he is at present."

Says a jobber from the southwest: "We find that the two companies mentioned in your letter are now very active soliciting parts business, especially in this territory, and are giving the independent man some consideration whereas in the past he was to them more or less a 'shade tree' mechanic."

OTHER SOURCES NOW

A supplier in the east indicates his indifference to the proposition of selling genuine parts as follows:

"About a year-and-a-half ago, a manufacturer wrote to us with regard to a proposition to handle replacement parts. Since we have had few calls for replacement parts other than what we can secure from Perfection Refrigeration Parts Co., we dropped the matter."

A midwestern jobber adds further light to the "identification" problem: "Replacement parts are but a small item in our business. The difficulty in handling replacement parts is that it is impossible to acquaint the field with proper identification of parts which they may require.

"No manufacturer has as yet made an effort to list replacement parts which are generally sold and which

are subject to frequent wear and tear.

"Manufacturers' parts catalogs cover every part from an ordinary screw and washer which may have been used when the corporation started business right through up to the present time, and so many models have been specified apparently for the sales department that no one in the field, not even a distributor of a machine manufacturer, is in a position to locate out of his manufacturer's catalog, the part he is in need of.

"The other big objection to handling genuine parts is that there is not a sufficient margin in these devices."

Refrigeration Dealers Buy For Air Conditioning

Question

3. Do you sell parts and supplies for air-conditioning installations? What kind of parts do you sell for these jobs and what types of firms buy from you (commercial refrigeration and air-conditioning dealers, heating and ventilating contractors, sheet metal contractors, independent service and installation companies, air-conditioning contractors)?

Answers

Eighteen jobbers of those replying sell parts and supplies for air-conditioning installations. Two of these sold very little in this line, and one jobber said that he barely ventured into the field. Of the remaining 15, five sell to all the categories mentioned; seven sell to air-conditioning and commercial refrigeration dealers, independent service and installation companies, air-conditioning contractors; one sells only to contractors; and one sells to air-conditioning dealers and heating and ventilating contractors.

With respect to this question, it is noteworthy that the jobbers declare that, generally speaking, their customers are in the class known as "commercial refrigeration and air-conditioning dealers," rather than "heating and ventilating contractors."

ITEMS FOR CONDITIONING

Of the items sold for air-conditioning installations, those most commonly mentioned by the jobbers are tubing, fittings, coil surfaces, controls, filters, expansion valves, line valves, relief valves, solenoid valves, vibration absorbers, condensers, grilles, and registers.

"In connection with this," says a jobber in the east, "we have sold a number of controls and driers and also some copper. Most of these orders have come from dealers who

specialize on commercial refrigeration and air conditioning."

From the southwest a jobber replies that parts and supplies for air-conditioning installations have represented a considerable volume in his business.

"We sell copper tubing, fittings, solenoid hand valves, thermostatic expansion valves, relief valves, refrigerants, and many other integral parts that it takes for an air-conditioning installation.

"We sell the commercial refrigeration and air-conditioning dealer, heating and ventilating contractor, and in fact practically every class of trade that is connected with the installation of air-conditioning equipment."

A Pacific Coast supplier finds a good market for air-conditioning items in arid Arizona. He says:

"In the Arizona territory, quite a portion of our business is obtained from air-conditioning dealers. It is also found that many of the independent service and installation companies in that state take care of and install air-conditioning equipment.

"Sales on the Coast are mostly made to commercial refrigeration and air-conditioning dealers."

Says a midwestern jobber of his customers:

"We sell parts and supplies for air-conditioning installations to commercial refrigeration and air-conditioning dealers, independent service and installation companies, and air-conditioning contractors.

"We do a comparatively small amount of business with the heating and ventilating contractor and the sheet metal contractor."

Jobbers Say Some Firms Are Still Uncooperative

Question

4. Are the discount schedules and policies of the parts and supply manufacturers more in line with your thinking and the jobber's interests than in the past?

Answers

The general consensus of opinion here seemed to be that there had been an improvement made in this respect, and that for the most part manufacturers were beginning to come around, but that there is still a good deal of room for improvement.

Several of the jobbers remarked that while some of the companies have begun to give the jobber a fair deal, there were still some who were very uncooperative. Only one jobber answered definitely in the negative.

Many of the jobbers that replied to this question unburdened themselves of their feelings on this point at some length.

DISCOUNTS CONFUSING

Wrote one from the southwest: "The discount schedules as outlined by the manufacturers have been somewhat confusing to the jobber, and it is rather difficult for him to sell some of the larger air-conditioning distributors as they can buy direct from their factories in the price bracket that does not correspond to the quantity purchased; for example, on thermostatic expansion valves they can buy two at about the 25 quantity price.

"This is one condition we would like to see all manufacturers standardize in order that the jobber would have one basis to sell the distributors and another for the distributor's dealer."

Another southwestern supplier is rather emphatic in asserting that manufacturer's haven't given the jobber a better break. Says he in answer to the question:

"NO. Insufficient spread for this distance from the source of supply. Jobbers required to buy quantities for best prices. No protection as to territory or activities."

A jobber from the east writes in more conciliatory language, but describes one of the problems in the manufacturer-jobber relation in some detail:

"Regarding discount schedules and policies of the parts and supplies manufacturers, we feel they are more in line at the present time than in the past.

"While a great many of the manufacturers are doing their utmost to further the interest of the jobber and keep the business on a high plane, there are a great many manufacturers who disregard good sound business ethics and resort to most any means to get their product on the market regardless of the result.

FOR MONOPOLY?

"We find the best cooperation among those manufacturers who have little or no competition in their line.

"We distribute coils for a certain manufacturer in this territory and have done a very good job to acquaint the dealers and distributors with its merits. However, their sales department will make direct sales to the dealers in the territory and not give us any credit whatsoever."

A midwestern jobber finds no general answer to the question.

"To answer this question," he remarks, "we would have to answer it as to each individual manufacturer. We find that some manufacturers are using the jobbers as a football, while others are definitely trying to cooperate with the jobber and set up a complete jobber's distribution."

Comments a West Coast supplier: "As a whole, the dealer's schedules and policies are much more reasonable than they have been in the past. There are only a certain few manufacturers who have failed to realize that the operating overhead and inventory requirements for a parts jobber are high, and expect the jobber to cooperate and push the sale of their merchandise when in reality it is sold at a loss (cost of merchandise plus operating costs)."

A SPECIFIC CASE

A midwestern jobber explains how conditions may improve further:

"In general, the policies of the best manufacturers will improve still further as the problems in specific divisions are improved," he explains.

"For example, the thermostatic valve manufacturers have the problem of selling valves to unit manufacturers and so forth who in turn are reselling these valves in competition to the parts jobbers. Many of these manufacturers do not attempt to keep their prices in line with the recommended resale prices. Many of these manufacturers are underselling the parts jobber.

"We feel, however, that these conditions will improve and the distribution of the valves will be more

(Continued on Page 12, Column 1)

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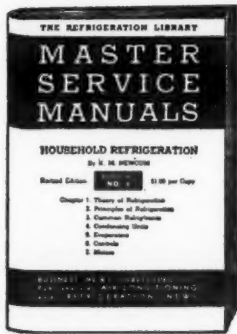
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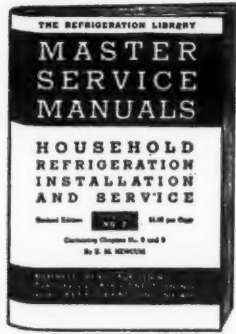
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Beginner's Course In Household Refrigeration

By K. M. Newcum



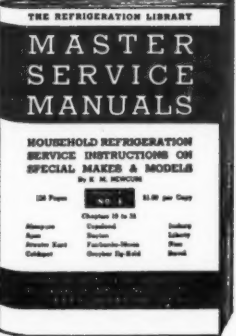
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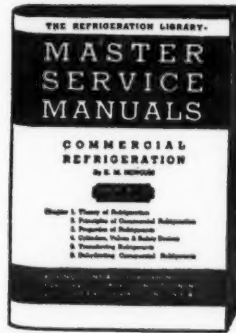


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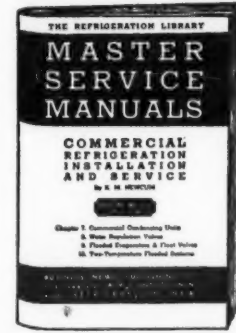


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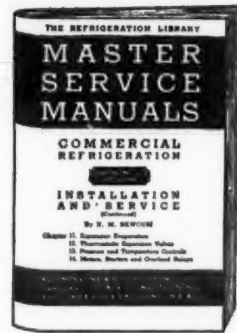
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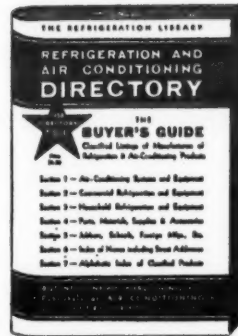


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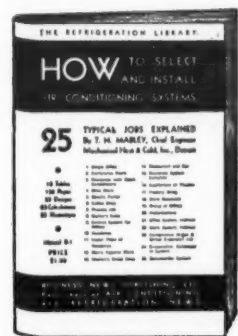
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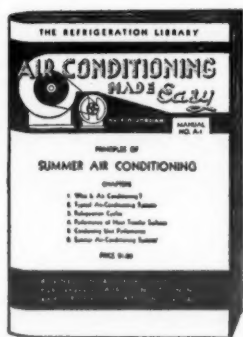
MANUAL B-1—Appliance Selling Today is a book of sales ideas, presentation plans, and management methods for the electrical appliance dealer and salesman taken from actual experiences of dealers. Size 8 1/2 x 11. 128 pages. Price \$1.00.

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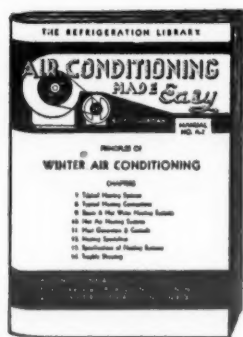


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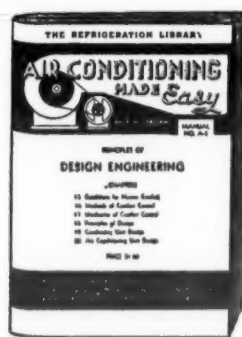
A Complete Course of Study In Air Conditioning by F. O. Jordan



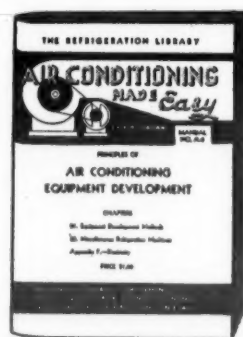
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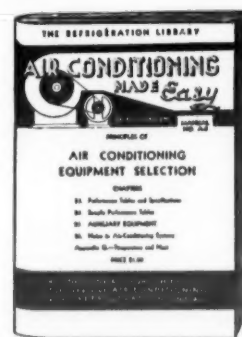
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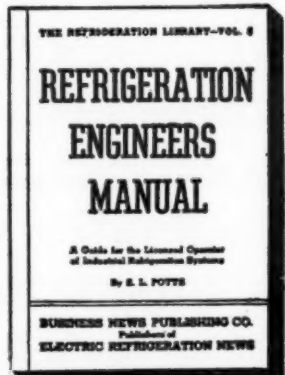
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Inability To Get Financing Hinders Sale of Units By Service Firms

(Continued from Page 10, Column 5) closely confined to parts jobbers in the future.

"Many other branches have specific problems such as in the distribution of refrigerants where the jobber's profit is very low."

Writes another midwestern jobber: "The discount schedules and policies on the part of supply manufacturers have greatly improved in the last two years, but are still unsatisfactory."

"Many manufacturers look upon the jobber as a necessary evil and there are quite a few who do not have the slightest conception of the necessary gross margin of profit on the part of the jobber to operate successfully and stay in business."

"We are at present carrying several lines of branded merchandise, solely as a necessary service to our customers and actually at a loss to ourselves."

A jobber operating in the south gives a specific example of some things he doesn't like:

"The discount schedules and policies of the manufacturers have greatly improved since we opened our refrigeration and air-conditioning parts department, but they have a far way to go before it will be entirely to our liking," he points out.

A PROFIT PROBLEM

"For instance, on fittings our discount is 25 and 20%, of which we give the recommended discount of 20% to the trade. We pay our outside salesman 5% commission, our counter man 3%. We are expected to carry at least a \$700 stock on hand of just solder fittings."

"This discount is above the aver-

age, however. One company from whom we buy unit coolers gives us a discount of 60 and 10%, and has an advertised recommended discount of 50 and 10%."

"You can readily see with the 5% salesman's commission, a possible 3% additional, a 3% unemployment compensation tax levied in the state of Florida on total payroll which we pay, a Social Security tax, and our expense of doing business, which runs around 18 to 21%, on an investment of \$1.00 we do not gross sufficient profit to warrant that particular investment, and must look elsewhere for additional profit."

"The gross profit on tubing sold in large quantities, gas, and such items makes these accommodation items only."

A midwestern jobber looks at manufacturer-jobber relations and sums it up as follows:

"There has been a general improvement toward policies as laid down by suppliers to jobbers. Our only complaint is that very frequently manufacturers change a national schedule because of some particular local difficulty without taking major jobbers into consideration and this frequently creates ill-will, friction, and loss of business to the legitimate jobber."

"Some manufacturers still insist upon endeavoring to obtain the business direct even though they have decent representation in the territory."

"Some manufacturers who never refer an inquiry nor an order to the jobber belittles the jobber and gives the impression that they can obtain a better service by doing business direct. The actual amount of revenue from this source we are always glad to pass up but morally and from an

impression standpoint, it does not help the jobber at all.

HITS DIRECT SELLING

"A manufacturer recently sent his 1938 catalog direct to the trade and his excuse was that they preferred to do this direct because some jobbers would not mail the catalog out, but would leave them laying on their shelves."

"What this actually resulted in was that the same discount was allowed to distributors, to dealers, and to national users. Later this company changed its mind with reference to national users, and after they had received the discount schedule which we believe should be extended only to persons and concerns reselling their products, the discount was withdrawn and this certainly did not fit in with the customer's wishes. It reflected back on the jobber, the reflection being that the jobber was trying to hold up the national user."

Note Trend to High Side Sales By Service Men

Question

5. Is there a greater tendency on the part of independent service engineers in your territory to sell high sides, both for original installations and replacements?

Answers

Ten jobbers answered in the affirmative to this question. Some jobbers among this group expressed the contention that lack of adequate financing prevented this trend from developing still further.

One jobber said that high sides sold by service men in his territory were being used only for new installations.

Four felt that this trend did not exist in their territories.

One said that the trend has just begun, but felt that this would be a real field in the future.

Answers to this question seemed to vary somewhat by the particular territory in which the jobber operates.

Declared a midwestern concern: "We believe there is a definite trend on the part of the independents to sell machines in competition with established dealerships."

MOSTLY FOR CASH

From the Pacific Coast: "The independent service engineer has always sold quite a number of condensing units in this area. The financing problem limits them, for most of them are cash dealers as they do not have the necessary backing to make a connection with any of the national or local finance companies."

An eastern jobber: "The average service installation engineer is not sufficiently organized or properly trained to sell high sides to any extent. We find that they buy and sell a very small number of compressors."

The situation in the southwest: "The high side replacement business for the independent service man in this territory has been rather hampered for the past few years by the distributors themselves going out and selling direct to the consumer, carrying his paper, and of course giving them the regular 12 or 18-month guarantee."

"The service men, however, are naturally looking into these sales, and in the near future this should develop into a profitable business."

From the south: "Most of the high sides sold by independents in this vicinity are on new installations, according to our observation."

NOT 'SALES MINDED'

A midwestern jobber: "The independent service man is not inclined to sell new units, coils, or any other new equipment. He has not been trained in sales work and somehow cannot get away from the idea that he is there to 'fix it.' High sides are usually sold by selling organizations with sufficient capital behind them."

A Pacific Coast jobber comments as follows:

"Most of the independent service engineers in our territory are becoming more 'high side' minded and are going after the new installation and replacement business."

Another midwestern jobber sees a good future in the field:

"We believe that the independent service engineer has a better opportunity of selling new equipment than many of the present distributors. Unfortunately they do not have the knowledge or ability to handle such sales and have been passing up this business. As they become more sales conscious they will secure a larger share of high side sales."

How Service Engineers Finance Their Sales

Question

6. How do independent service engineers in your territory finance the sale of high sides or complete new installations?

Answers

Six of the jobbers claimed that the sales were on a cash basis as the independent service engineer is unable to finance them in any way.

Seven of the jobbers mentioned as sources of financing the C.I.T. Corp., Commercial Credit Co., Morris Plan, local finance houses, and the F.H.A., but also mentioned that a large percentage of the sales was on a cash basis. Of these seven, one mentioned that the purchaser did a large percentage of his own financing through commercial houses, in some instances with the cooperation of the independent service organization.

CAN'T BUCK FINANCING

One answered that because of the restrictions placed on the independent service engineer by the financing angle, the high sides were sold almost entirely by the larger unit manufacturers.

One answered that the financing was often done by the customer and in some instances by the jobber.

A number of the jobbers replying stated that they did not know how the service men financed the sales of high sides. Those that did know indicated that the service man often had difficulty in getting his sales

financed through the usual channels, and preferred a cash transaction. Typical replies from the various sections follow:

From the south: "If their credit is sufficiently good, the sales of units by the independents are financed through the Commercial Credit Co. and the C.I.T. Corp. Otherwise, they must receive cash for such installations if they are not able to carry them."

From the southwest: "This has been another factor in retarding sales due to the fact that so many service men have no way of financing the paper or the sale. About 98% of the units sold by independent service men in this territory have been on a cash basis."

Says a midwestern supplier: "Independents finance machines through the various federal and local finance houses, both with recourse and without recourse."

A jobber from the southwest states:

"Finance companies are reaching into this field where financing is needed."

Another view of the situation from the midwest: "Financing of high sides and new installations has restricted the sales of the independent service men to a great extent. Some of them are contacting the commercial and credit houses and securing their financing through these channels."

"Up to the present time, however, we are of the opinion that the purchaser has done his own financing through the commercial houses, in some instances with the cooperation of the independent service organization."

The jobber gets into the picture on the West Coast, according to the following statement from a supplier in that area:

"In most cases, customers finance the sale of new installations through their bank, but it is the practice of some jobbers in our locality to finance the complete job for the independent service engineer, who does not have sufficient credit rating to do so himself."

(Concluded on Page 13, Column 1)

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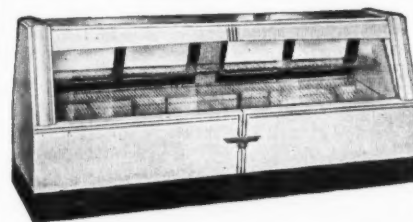
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Parts Wholesalers Sell To Many Classes Of Trade, Some Over a Wide Area

(Concluded from Page 12, Column 5)

How Sales Are Split By Types of Customers

Question

7. Approximately what percentage of your sales are made to: (1) independent service organizations; (2) distributors; (3) dealers; (4) others?

Answers

Of the replies to this question made by 11 jobbers the following was the general average of percentages:

Independent service organizations	45%
Distributors	25%
Dealers	20%
Others	10%

Four of the jobbers did not answer the question at all.

One of them sold to independent service organizations and dealers and no one else.

One of them sold the largest part of his dollar volume to dealers and distributors.

ANSWERS VARY WIDELY

The wide variations in the individual answers to this question may make the averages quoted above somewhat meaningless. There seems to be no reason for the variations indicated in the answers:

States one eastern jobber: "Approximately 65% of our sales are made to distributors or contractors and the balance to independent service organizations."

Another supplier located in the east says his division of sales by customers is approximately as follows:

"(1) independent service organizations—30%; (2) distributors—30%; (3) dealers—40%."

A third eastern supplier comments on his high side sales only, declaring:

"According to our records last year, only 4% of our high side sales went to independent service organizations, and 96% were sold to other classes of trade."

DISTRIBUTORS BUY

One midwestern concern finds distributors his best customers:

"Our sales," he says, "are split up about as follows: distributors—60%; dealers—20%; independent service organizations—20%."

Says another jobber from the midwest:

"We are unable to give you a breakdown although the biggest dollar volume would come from distributors and dealers."

A jobber from the southwest says his "profitable percentage of sales" is in the following ratios:

"(1) independent service organizations—45%; (2) distributors—25%; (3) dealers—25%; (4) others—5%."

Another concern from the same area finds their division of sales to be somewhat as follows:

"(1) Independent service organizations—50%; (2) distributors—10%; (3) dealers—20%; (4) others—20%."

From the south a jobber offers this explanation of where he makes his sales:

"(1) Independent service companies—20%; (2) distributors—20%; (3) dealers—40%; (4) ice cream companies, dairies, hotels having their own service engineers, etc.—20%."

Views Vary on Proper Size of Territory

Question

8. Do you find it more profitable to operate over a large territory or concentrate your sales efforts in a smaller territory?

Answers

Nine jobbers found it more profitable to operate in small territories because there was less expense, they were able to visit contacts more often, etc.

Seven jobbers spread their activi-

ties on a larger scale, four of them doing so because of their location.

One jobber had never computed the relative advantages and disadvantages, but was apparently operating over a fairly large territory.

Geographical location, nearness of competitors, and other such factors apparently have a bearing on the jobbers' consideration of this question.

Writes one from the shores of the Pacific:

"Our location compels us to operate over quite a large territory. This question was no doubt intended for the jobbers located in the more concentrated middle western and eastern sections."

"Our activities," declares a supplier in the southwest, "have to be over what would be a large territory due to the small population, long jumps, and low buying power." Another jobber from the southwest offers practically the same story in his reply.

However, a parts wholesaler from a more northerly portion of the southwest states:

"We find it more profitable to concentrate our efforts on a small territory and thoroughly work this instead of trying to cover too much ground and not contacting the trade regularly enough."

From a midwestern concern comes this analysis:

"We have never made division of expenses against outlying local territory. Our sales expense is spread over the entire territory and it is on this basis that we do business."

"It is true that it costs considerably more to do business away from the home office, because it requires efficient and highly paid trained men."

SOME LARGE, SOME SMALL

A jobber located in the east states his answer succinctly:

"We concentrate our efforts in a workable territory outside of our warehouse points."

But another eastern parts wholesaler takes a different viewpoint:

"We operate over the tri-state area which is a fairly large territory and find it profitable to do so," he declares.

From a midwestern jobber:

"Experience in the last three years has taught us that it is vastly more profitable to concentrate our sales efforts in a limited territory of surrounding states, than to attempt to solicit business over a large territory. This is naturally due to the costs of sales and also to the costs of catalogs and mailings."

Reason for concentrating in a small territory is given by an eastern jobber:

"We confine ourselves to a radius of approximately 75 miles of the city in which we are located. Beyond this point we would get into the territories to which other jobbers are closer."

They Don't Appoint Dealers For Units

Question

9. Do you appoint authorized dealers in restricted territories for the distribution of your line of high sides, or sell them to any service companies, dealers, case manufacturers, etc.?

Answers

The 14 jobbers replying to this question did not authorize dealers, but would sell them to any reliable service company, dealer, etc.

On this question there was more unanimity of thought among the jobbers than on most of the other questions.

All the jobbers selling high sides stated that they did not appoint authorized dealers, and there were only a few that had given any consideration to the idea.

TRIED IT, BUT QUIT

One midwestern supplier who had tried it had the following comment to make:

"We formerly appointed authorized sub-jobbers in certain territories, but have abandoned this idea, finding that it creates competition in the

long run. We do not authorize any dealers in restricted territories for the distribution of our parts today."

Stated a jobber from the southwest:

"We have not appointed dealers in restricted territories for the distribution of high sides. We have endeavored to select only such dealers as we felt capable of properly servicing the units after installation, and outlined our proposition to them."

A West Coast jobber outlines his position thus:

"We do not offer any exclusive arrangements on any of our merchandise. We will sell to any legitimate service company, dealer, or manufacturer."

From the midwest came this reply:

"We appoint no authorized dealers in selling high sides nor any of our other products. These commodities are sold to people engaged in the business of refrigeration and there are no strings attached to the sale of these products."

Certain They Serve the Air-Conditioning Field

Question

10. Do you think the jobbers will serve the air-conditioning industry in the same manner they now serve the refrigeration industry?

Answers

Sixteen jobbers answered yes; three of them stating that they believed the jobber was already so doing.

One jobber stated that he believed the jobber would sell all the parts, but never the major units for air-conditioning installations.

One answered in the negative.

Some of the jobbers' answers to

these questions explained how and why the refrigeration parts jobber is serving the air-conditioning industry, and how his place in the air-conditioning field will continue to grow.

"It is our sincere opinion," writes a midwestern firm, "that the jobbers not only will serve the air-conditioning industry in the same manner that they are now serving the refrigeration industry, but are doing so right now, and this should prove to be increasingly important in a jobber's business."

One possible "fly in the ointment" is spotted by a southern jobber:

"The jobber will undoubtedly serve the air-conditioning industry in the same way that he serves the refrigeration industry," declares this jobber, "if the plumbing jobbers do not go in for stocking air-conditioning parts, as most jobs have to be done through plumbers on account of the labor unions."

A midwestern jobber sees the picture this way:

"I believe that the jobber will serve the air-conditioning industry in the same manner that the refrigeration industry is being served today except probably to a greater degree. Packaged air-conditioning units will require only tubing and fittings, but the large air-conditioning installations require solenoid valves, line shut-off valves, pressure relief valves, tubing, and fittings, which certainly cannot accompany the condensing unit and the air-conditioning coil when it leaves the manufacturer's plant."

"All of the stuff has to be figured out for each individual job and there would be too much delay in trying to supply installation and control equipment for any air-conditioning system from any remote location."

The jobbers will fill a need, thinks an eastern supplier:

"There is no reason," he says, "why a jobber should not serve the

air-conditioning industry in the same manner that they serve the refrigeration field. The industry will need jobbers to give it the service it requires."

PARTS, BUT NOT UNITS

Another eastern jobber takes the following viewpoint:

"I think that the parts supply jobber will sell parts, but I do not believe he will ever sell the major units making up an air-conditioning job to any great extent."

One concern operating in the southwest sees an opportunity for the jobbers if they get an early start in the air-conditioning field. Says he: "There is no reason why the jobber should not serve the air-conditioning industry in the same manner he serves the refrigeration industry."

"In fact, this should be a much richer field as the air-conditioning industry has just begun and practically none of the distributors has a stock, and if the jobber starts out carrying ample stocks he should continue to receive their business, providing of course he delivers the proper service."

A midwestern concern finds the "day" has already arrived:

"... the jobber will do a lot in the air-conditioning industry. In fact, I believe our largest volume is there now."

A West Coast jobber gives this view of the situation:

"Undoubtedly the jobber will be required to carry quite a line of air-conditioning supplies in the very near future. At this time, however, we find the majority of installations are made by the nationally known concerns who carry quite a complete stock of factory parts on hand."

"A skeleton stock of items such as filters, strainers, dryers, fittings, and tubing are now carried. These lines will no doubt be added to within the next year."

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Service

'Specialists' For Different Types of Work Plus Complete Call Records Make Service Firm's Work Satisfactory, Profitable

BATON ROUGE, La.—That operating improvements in the electrical repair shop handling servicing on refrigerators and air-conditioning equipment will improve sales as well is brought out by the recent experience of this department of United Service here.

This firm not only increased service and parts sales by the addition to service shop personnel and more active work "outside," but the increased repair activity was reflected in improved sales of refrigerators and air-conditioning equipment. United Service leaves sales of household refrigerators to a downtown department store, whose repair work it does, and limits sales in the Frigidaire equipment it supplies to commercial cases and air conditioning.

Specialization of this shop in repair work for the two departments—which are operated as two divisions

of the service shop, one for household refrigerators, and one for air conditioning, has brought a considerable amount of repair work for all makes of refrigerators and systems aside from its special line, A. C. Wolfe, manager, reports.

"We had always had household repair work, and formerly sold household refrigerators, too," Mr. Wolfe explained. "Recently, we turned over domestic retail sales to a downtown store; but we find that our service men are still very useful in selling new refrigerators."

"The customer, for instance, relies heavily on the service man for 'advice.'"

Among improvements made at the time Mr. Wolfe took over management of the shop more than a year ago was the addition of two men, to give a crew of three, besides himself. This allowed for better specialization in the various divisions of

shop service: one man handles air-conditioning repairs, another household refrigerator complaint problems, and a third, who can pinch-hit for both, regularly works in the Delco unit of the shop.

"We run an all-night service although we discourage its use except for emergency, since it means overtime for the men. But there are always commercial customers whose work has to be done at night, and this is an indispensable feature of the service," Mr. Wolfe says.

The specialization in refrigeration or air-conditioning repairs is even carried out in the service cars. One of them, a small truck, is used for the air-conditioning complaint service; the other is used by the specialist in household refrigerators.

This enables each car to carry equipment suited to its business, Mr. Wolfe says. Repair equipment at hand has proved a big item in efficiency in operation of the shop, which has also been considerably improved in the past year.

KEEP LARGE STOCK

"We find that a large supply of belts, drip trays, and door handles, kept in stock and in the service car, will cut down service time on many calls for household refrigerators," Mr. Wolfe says. "Since most customers expect you to have to send to the factory for parts such as these, to have them on hand makes a very favorable impression."

Electric motors needing repairs are picked up on the job one day and returned the next. The overhauling, which carries a year's guarantee with it, is done by the motor department, and is apart from the refrigeration and air-conditioning repair units of the company, which is credited only with the pick up and delivery.

Mr. Wolfe also insists that one man follow through on every repair call.

"If one man makes the first call; and then the customer, on complaining is confronted with another repair man who doesn't know the history of the case, both of them are confused. Even if the customer has to wait until the first man is available, it is better to make him do so, so that this confusion can be avoided. This has saved a lot of mix-ups."

COMPLETE RECORDS

Extremely useful to the shop has been a duplicate call slip, which contains a rather complete history of the case, and is filled out as the complaint call is received. From the customer, over the phone, is obtained the name and address; time of call, etc; model and make can be obtained from permanent file records—on all Frigidaire equipment sold since the system was installed in 1934—and placed on the call slip. The call slip follows through with report of time call is made, the service man making it, the invoice number and amount of repairs, along with the nature of the service.

One of these slips, on receipt, goes to the service man; the other to the office. The call slip thus shows a complete history of the complaint, and the service given it.

The permanent card file record form contains a brief listing, giving, besides the name and identification of the customer, the date of installation of the refrigerator or air-conditioning equipment, and the identifying numbers of the equipment. The call slip is destroyed after the service is completed; but the permanent record card contains ample space for notation of repairs, and the date.

Service 'Case History' Form

Name
Address
Model or Age
Make
Complaint
Date
Time Call Received
Time Service Promised
Telephone No.
Remarks
Date and Hour Served
Nature of Service
No. of Invoice
Service Man
Amount of Repairs \$.....

FRIGIDAIRE SERVICE

Date Installed
Comp. No.
Cab. No.
Model No.
Purchaser
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City
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SALES MANAGER Wanted. Experienced in selling coolers to bottlers and users—wholesale and retail. Located in Illinois. Give full details and experience. Box 1076, Air Conditioning & Refrigeration News.

POSITIONS WANTED

AVAILABLE: Refrigeration and air conditioning engineer with five years' experience in laboratories of large manufacturers, two years' service managerial experience, four years of sales experience and ten years' production work. Member of ASRE and ASME. Box 1072, Air Conditioning & Refrigeration News.

THOROUGHLY EXPERIENCED Manager for your commercial refrigeration department. Has technical and 12 years' successful practical experience in the organization and management of commercial departments. Can obtain volume sales, engineer any type of installation, and diagnose difficult service problems, thereby assuring profits. Will consider any location. Write Box 1073, Air Conditioning & Refrigeration News.

AIR CONDITIONING Department Organizer. A man, with 20 years' experience, starting with architecture, ranging through broad manufacturing and merchandising experience, and culminating in several years' work with leading air conditioning company, will be available after September first to a manufacturer or distributor to promote year 'round products. Knows design, man-management and promotional works. Has made five figure yearly income but would start on smaller basis with expanding possibilities. Write Box 1074, Air Conditioning & Refrigeration News.

EQUIPMENT FOR SALE

FOR IMMEDIATE SALE, 100 1/2 h.p. Frigidaire compressors, twin cylinder Model S, all removed from running installations. All operating but not over-

hauled. Complete with flywheel and valves, \$9.50. Completely overhauled, \$13.50. No charge for crating. IMPERIAL HERMETIC REFRIGERATION SERVICE, 619 W. 125th St., New York City.

REPAIR SERVICE

CONTROL REPAIR service. Your controls repaired by expert mechanics, with special precision equipment. Supervised by graduate engineers. We stress perfection and dependability before price. One year guarantee on domestic controls. Any bellows operated device repaired. HALECTRIC LABORATORY, 1793 Lakeview Road, Cleveland, Ohio.

GENERAL ELECTRIC and Westinghouse hermetic units rebuilt. Guaranteed unconditionally for one year and returned to you refinished like new. Units are entirely disassembled in our large modern shop, tested through every step of production during rebuilding with the most complete test equipment for accurate work, then subjected to exhaustive running tests under actual operating conditions. Each unit measures to exacting standards after rebuilding. Prices \$30.00 on General Electric DR-1, DR-2, and Westinghouse; \$35.00 on General Electric DR-3. Quotations furnished on other models. Quick service—guaranteed work. REFRIGERATION MAINTENANCE CORP., 365 East Illinois St., Chicago, Ill.

DOMESTIC CONTROLS repaired: Ranco pencil \$1.75, Ranco box \$2.00, General Electric \$2.00, Tag \$2.00, Cutler-Hammer \$2.00, Penn \$2.00, Bishop Babcock \$2.50, Majestic \$2.50, Penn magnetic \$2.50, G. E. Frigidaire \$2.50. In business over 20 years. Our name is our guarantee. UNITED SPEEDOMETER REPAIR CO., INC., 436 West 57th Street, New York City.

ALL MAKES of reciprocating type compressors rebuilt or repaired. Discharge plate, float valve and compressor body exchange service, specializing in Kelvinator and Frigidaire. New machine performance guaranteed. Standard size parts used—no oversize or reamed parts. Write or wire for price list and references. RE-NU COMPRESSOR & SUPPLY CO., 2462 W. Fond du Lac Ave., Milwaukee, Wisconsin.

WORLD'S LARGEST Rebuilders of hermetic units. Specializing in Majestic, G. E., Westinghouse and Grunow. Dealers exchange price \$30.00 with 18 months' written guarantee. Parts for Grunows and Majestic all models. G. E. units wanted for cash. Send for catalogs. G & G GENUINE MAJESTIC REFRIGERATOR AND RADIO PARTS SERVICE, 5801 Dickens, Chicago.

PATENT FOR SALE

AUTOMATIC DEFROSTING Apparatus and System entirely eliminates the human equation and provides for maintaining the evaporator and cooling coils in efficient defrosted condition, while also automatically protecting the food from excessively high temperatures. Patent just recently issued has reasonably broad claims. Complete information on request. Box 1077, Air Conditioning & Refrigeration News.

PATENTS

HAVE YOUR patent work done by a specialist. I have had more than 25 years' experience in refrigeration engineering. Prompt searches and reports. Reasonable fees. H. R. VAN DEVENTER (ASRE), Patent Attorney, 342 Madison Avenue, New York City.



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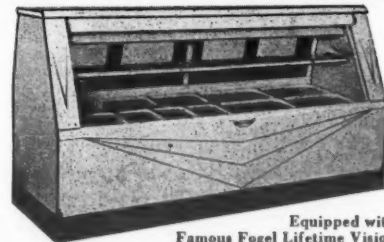
Phosphor bronze disc reinforces top of Sylvan. Swivel joint relieves twisting strain from Sylvan. Wheel fits palm of hand. Handle wedged and securely locked in bonnet. Steel nut makes firm, sure seal between bonnet and body. Special spring loaded packing holds gate whether valve is in open, closed or partially open position and prevents pulsations from reaching Sylvan. Extra large approved bronze Sylvan with soft copper flange to make tight joint under bonnet. Sylvan travel restricted to less than its capacity and extra deep convolutions prolong life to more than 100,000 cycles. All seats protected with lead protection until used. Raised portion of base form socket which takes retaining screws when mounted in wall or slab.

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THE BUYER'S GUIDE

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Engineering

Exhaust Steam Drives Compressor At Saving

CINCINNATI—Use of exhaust steam under 1 lb. pressure to propel a 435-ton centrifugal refrigeration machine has proved successful in the H. & S. Pogue Co. department store here. Engineers report that this method has resulted in a net saving of one-quarter of a cent per kilowatt hour in operating cost.

During the summer, 95% of the exhaust steam from the generators for the power plant has been wasted. In winter a small amount was wasted, as the rest was used for heating. This left a sufficient amount of 1 lb. pressure exhaust steam to use in the air-conditioning system during any season.

Another air-conditioning economy was made by the use of a cooling tower for condenser water. A 1,600-gallon-per-minute tower was installed on the roof with provisions for enlargement when the system is extended to the upper five floors of the store.

The air-conditioning system itself is divided into 16 zones, the basement comprising one zone and the three upper floors divided into five zones each.

Zoning enabled the designing engineers to use small equipment suspended from the ceiling to save floor space and get better distribution.

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W. NORFOLK, VA.

U. S. Bureau of Standards Tests Air Filters By Using 'Electric Eye'

HOT SPRINGS, Va.—How air filters are tested by means of the "electric eye" at the Bureau of Standards, Washington, D. C., was described by Richard S. Dill, associate mechanical engineer of the Bureau of Standards, U. S. Department of Commerce, before the semi-annual meeting of the American Society of Heating & Ventilating Engineers here.

"The apparatus now used for testing air filters at the National Bureau of Standards," Mr. Dill said, "consists of a means for drawing air through a specimen filter at a predetermined rate, a means for impregnating the air with dust before it reaches the filter under test, and a means of drawing measured samples of the filtered and unfiltered air simultaneously through filter papers.

"A photometer which employs a source of light and a photoelectric cell is provided for comparing the densities of the dust deposits on the filter papers. At present, the standard test dust is a fly ash called Cottrell precipitate, since it is obtained from a Cottrell precipitator in a local power plant burning pulverized coal."

Mr. Dill described how air entering the apparatus used for testing filters can be passed directly to the filter or run through an elutriating tank to remove large particles before reaching the specimen filter.

"A slant gauge is used to measure the pressure loss or resistance of the filter. A U-tube water manometer is used to indicate the pressure drop across the metering orifice, and hence the air flow in the main duct.

"A 6-inch orifice is used for deliveries up to about 1,200 c.f.m., and a 9-inch orifice for flows up to 2,000 c.f.m., which is near the upper limit of capacity of the apparatus.

"The photometer used for comparing the density of dust deposits on filter papers consists essentially of an automobile headlight bulb and a photo cell with an aperture across which the filter paper can be placed so that the light from the bulb passes through the paper and falls on the cell."

"The readings of the millivoltmeter . . . are accepted as an indication of the light passing through the filter paper and falling on the cell, and in consequence, the transparency of the paper," Mr. Dill continued.

Dust is deposited on the sample filter papers by an apparatus which deposits about one gram of dust per thousand cubic feet of air. Ten grams are used at once, so that the duration of a run for a filter with a delivery of 800 or 1,000 c.f.m. is 10 or 12 minutes.

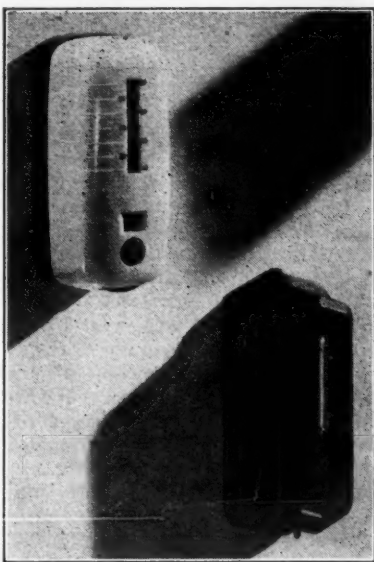
"Evaluation of an efficiency with a precision of 1 or 2% is possible," the speaker said. "Such evaluations are not customarily made, because integral efficiencies, multiples of five, have been chosen by the purchasing agencies of the government as criteria for the performance of the various classes of filters. Filters with efficiencies below 60% are not acceptable, and filters with efficiencies above 80% are generally acceptable under present government specifications."

After the apparatus for testing air filters was installed at the request of the procurement division of the Treasury Department in 1934, it was found that tests of filters with atmospheric dust were inconclusive, Mr. Dill declared.

"With the Cottrell precipitate, however," he went on, "efficiencies of filters on the market were found to be spread over a large range, specifically from less than 10 to something over 80% and the difference between filters is more easily shown.

"The test method, as it is now applied, gives information on the performance of the filters when new. It gives no information on the effects of time or use on performance but its application has permitted the selection of filters with useful initial effectiveness."

Industrial Art



Modern designing of the new Automatic Products Co. thermostat (top left), as contrasted with older model (below right).

A-P Thermostat Has New Operating Features, Too

MILWAUKEE—Beauty in design and completeness in construction distinguish the new "88 Series" room thermostats now being introduced by the Automatic Products Co. of this city.

Designed by Barnes & Reincke, firm of artists and designers, the new thermostats offer a number of distinctive features. The case or cover has a modern, softly rounded design. Thermometer is recessed for protection against breakage and for added attractiveness.

Cover louvers have been eliminated, and instead, air is circulated between the base and bottom of the cover.

The new thermostats afford quick cycling temperature control for either high or low voltage installation, with or without the "heat anticipator." They can be used for heating and cooling, or heating or cooling.

The "heat anticipator" is claimed to assure control of temperatures within a maximum variation of less than 2° F., with very little "overshooting."

Model No. 88-HA is rated at 1/4-hp. R.I. and can be used with a 1/4-hp. R.I. motor without the use of a relay. This is said to simplify installation on many applications such as a blower fan or a unit heater powered with a 1/4-hp. motor or smaller.

Another new development is the separate terminal board mounting with spring pressure contacts. This provides quick and easy installation, for this separate terminal board may be mounted on the wall and wires attached in a minimum amount of time. Then the base and thermostat cover are merely snapped into place and the installation is complete.

A "magnetic blowout," which is a double magnet used to depress the arc at contact points, is said to insure against point pitting.

The new "88 Series" thermostats are available for use with standard furnace equipment, and will be offered also in a special sales unit together with transformer, limit control, and motor.

Eastman Kodak Product Used In Construction

NEW YORK CITY—Two important improvements—greater accuracy in adjusting the temperature control and a more easily read thermometer—have been accomplished by the redesigning of Automatic Products Co.'s A-P thermostat control in the modern manner through use of plastic, reports Dennis C. Guthrie of Tennessee Eastman Products, division of Eastman Kodak Co.

It has a phenolic composition base and a housing of Tenite, an Eastman plastic.

Interesting feature of the new design is the elimination of unattractive louvers or slots on the sides. Adequate circulation of air around the bimetallic strip is provided by a continuous vent between thermostat housing and its base, made possible by the snap-on attachment described above.

All plastic parts in the unit are molded by Chicago Die Mold Mfg. Co.

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